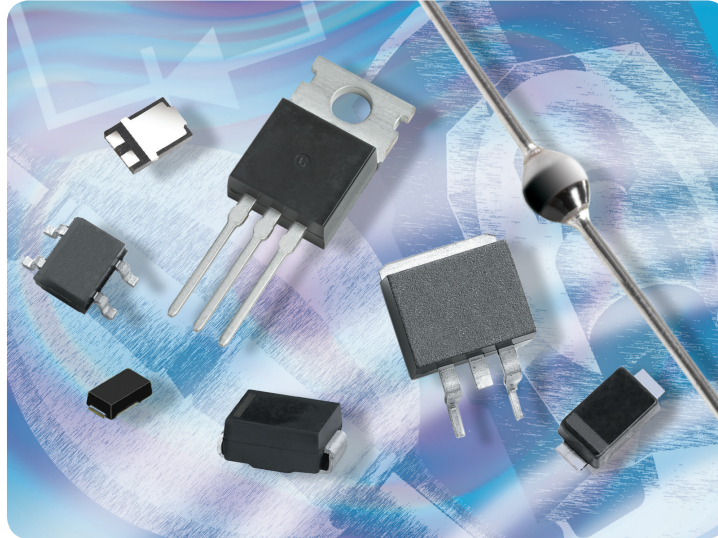


**FEATURED PRODUCTS**

- Bridge Rectifiers
- Fast Recovery Rectifiers
- Schottky Rectifiers
- Standard Rectifiers
- Ultrafast Recovery Rectifiers

RESOURCES

- For technical support, contact Rectifiers@vishay.com
- For more information, contact DiodesAmericas@vishay.com, DiodesEurope@vishay.com, and DiodesAsia@vishay.com

One of the World's Largest Manufacturers of
Discrete Semiconductors and Passive Components





TABLE OF CONTENTS

Featured Product Introduction 3

Schottky Rectifiers 7

- TMBS® (Trench MOS Barrier Schottky) Rectifiers..... 12
- High-Performance Schottky Rectifiers 21
 - HPS GEN 3.x (Planar Technology)..... 22
 - HPS GEN 2.x (Planar Technology)..... 23

Ultrafast Recovery Rectifiers..... 32

- FRED Pt® (Fast Recovery Epitaxial Diodes)..... 36
- HEXFRED® 44
- Ultrafast Avalanche Recovery Rectifiers..... 47
- Ultrafast Avalanche Rated Sinterglass Diodes 48

Standard and Fast Recovery Rectifiers 50

- Standard Rectifiers 50
- High-Voltage Standard Recovery Diodes - Plastics 52
- Standard Avalanche Recovery Rectifiers 53
- Standard Avalanche Rated Sinterglass Diodes 55
- ESD Capability Rectifiers 56
- Fast Recovery Rectifiers 57
- Fast Soft Recovery Rectifiers 58
- Fast Avalanche Recovery Rectifiers 61
- Fast Avalanche Rated Sinterglass Diodes 62

Bridge Rectifiers..... 64

Rectifier Packages..... 68

Sample Package Construction..... 69



RECTIFIERS

Featured Product Information

Industry's First Commercial TMBS® - Trench MOS Barrier Schottky Rectifier Series



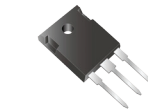
TO-277A (SMPC)



TO-262AA



ITO-220AC



TO-3PW



SMPD



TO-252 (D-PAK)



DO-204AC (DO-15)



P600 Axial



DO-201AD



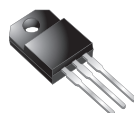
TO-262AB



SMPA



DO-220BC (SlimSMA)



ITO-220AB



DO-214AC (SMA)



TO-220AB



DO-214AA (SMB)



TO-220AC



DO-214AB (SMC)

Vishay's patented Trench MOS Barrier Schottky (TMBS®) rectifiers are available with seven voltage ratings from 45 V to 200 V and several different package options to serve a wide range of system requirements. TMBS offers several advantages over planar Schottky rectifiers. As operating voltages move to 45 V and above, planar Schottky rectifiers tend to lose their advantage of fast switching speeds and low forward voltage drop to a substantial degree. The patented TMBS structure addresses this issue by diminishing minority carrier injections to the drift region, thus minimizing stored charges and improving switching speeds.

For detailed information, please refer to the TMBS section of this selector guide or visit the Vishay website for the latest information on available devices.

FEATURES

- Patented Trench structure
- Voltage ratings: 45 V, 50 V, 60 V, 80 V, 100 V, 120 V, 150 V, 170 V, 200 V
- Improved efficiency in AC/DC SMPS and DC/DC converters
- High power density and low forward voltage
- Multiple package options

APPLICATIONS

- Adaptors for LCD monitors and TVs, mini PCs
- PC and server power supplies
- AD/DC SMPS
- DC/DC converters
- Telecom and server OR-ing diodes
- Solar cell junction box as a bypass diode for protection



RECTIFIERS

Featured Product Information

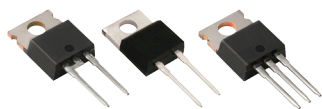
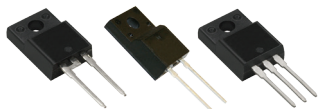
FRED Pt® Series 200 V to 600 V, T_j max 175 °C: Flexible Ultrafast Platform for Power Supplies and Inverters



SMF / SlimSMA / SMP



SMA / SMB / SMC

TO-220AC / TO-220AB / Isolated TO-220AC
(rated 8 A to 30 A)TO-220FPAC / AB
(rated 8 A to 30 A)D-PAK (TO-252) / D²PAK (TO-263)
(rated 4 A to 15 A) (rated 8 A to 30 A)I²PAK (TO-262)
(rated 8 A to 30 A)TO-247AC
(rated 30 A to 60 A)PowerTab®
(rated 80 A to 150 A)

The Vishay Semiconductors FRED Pt® Gen 1 and Gen 2 series of ultrafast diodes offer designers a highly flexible solution that's equally at home in consumer and automotive applications.

With ratings from 200 V to 600 V and from 3 A to 150 A -- unique in the industry -- these series allow designers to increase the efficiency of power supplies with devices designed to minimize conduction and/or switching losses.

Their extreme low leakage current at high temperatures, careful design of chip terminations, and construction with high-quality materials make FRED Pt the ideal choice for automotive applications as well.

FEATURES

- V_{RRM} 200 V to 600 V
- Same current (A) rating is available for devices optimized for lowest conduction losses or lowest switching losses
 - Lowest Q_{rr} at 125 °C
 - Lowest V_F at I_F
- Improved efficiency in SMPS
- Soft recovery for reduced EMI at high di/dt
- T_j (max) 175 °C
- AEC-Q101 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912
- Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

APPLICATIONS

- Power factor correction (PFC) for switchmode power supplies in
 - Desktop PCs
 - Lighting/ballast
 - Servers and telecom
 - PDP, TVs, LCD, monitors
 - Game controllers
- ECU for fuel injection on diesel/gasoline-fueled systems
- Traction control systems
- Solar inverters
- Freewheeling diode for industrial applications



RECTIFIERS

Featured Product Information

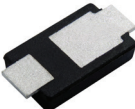
eSMP® Flat Type Surface-Mount Packages with Space-Saving Footprint

SMP



(3.8 mm x 2 mm x 1 mm)

SMPA



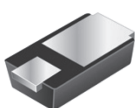
(5.2 mm x 2.6 mm x 0.95 mm)

SMPC



(6.7 mm x 4.8 mm x 1.1 mm)

MicroSMP



(2.5 mm x 1.3 mm x 0.65 mm)

SMPD



(12.63 mm x 10 mm x 1.7 mm)

SYMMETRICAL FLAT TYPES

SMF



(3.7 mm x 1.8 mm x 0.98 mm)

SlimSMA



(5.2 mm x 2.6 mm x 0.95 mm)

The Vishay Semiconductors eSMP® flat type surface-mount packages enable higher current density and power efficiency with a unique design that promotes better thermal performance and reliability.

FEATURES

- Space saving miniature packages:
 - SMP (3.8 mm x 2 mm x 1 mm)
 - SMPA (5.2 mm x 2.6 mm x 0.95 mm)
 - SMPC (6.7 mm x 4.8 mm x 1.1 mm)
 - MicroSMP (2.5 mm x 1.3 mm x 0.65 mm)
 - SMPD (12.63 mm x 10 mm x 1.7 mm)
 - SMF (3.7 mm x 1.8 mm x 0.98 mm)
 - » Symmetrical leads
 - Wave and reflow solderable
 - SlimSMA (5.2 mm x 2.6 mm x 0.95 mm)
 - » Symmetrical leads
- Special wide bottom plate design enables better heat dissipation than other packages of similar sizes
- Low device height
- Low thermal resistance
- AEC-Q101 qualified
- Halogen-free versions available
- Available for Schottky, ultrafast, and standard rectifiers

APPLICATIONS

- Telecom
- Automotive
- Computer
- Industrial
- Lighting
- DC/DC converters
- Free wheeling
- Mobile consumer electronics
- Solar cell junction box as a bypass diode for protection

	$R_{\theta JM}$
MicroSMP	30 °C/W
SMPA	9 °C/W
SMP	15 °C/W
SMPC	3 °C/W
SMPD	1.0 °C/W
SMF	25 °C/W
SlimSMA	12 °C/W



RECTIFIERS

Featured Product Information

New isoCink+™ Series Enhanced Power Bridge Rectifiers 10 A to 25 A (BU series) and 30 A to 45 A (PB series)



Vishay's new isoCink+™ power bridge rectifier series gives designers a space saving, high-current solution for bridge rectifiers in switchmode power supplies (SMPS), home appliances, audio/video equipment, and more. With highly efficient performance comparable to larger size bridge products, the low thermal resistance of power bridge devices reduces size requirements for heat sinks, since less heat needs to be dissipated. Offering a lead pitch and pin layout compatible with the conventional GBU and GSIB-55, isoCink+™ offers the designers the ability to upgrade system power without changing PCB layouts or heat sinking. A maximum solder temperature of 275 °C/10 s enables high reliability in manual soldering.

APPLICATIONS INCLUDE

- Primary rectification circuit of switch mode power supplies and adaptors for desktop PCs, servers, notebook PCs, plasma display panel (PDP) TVs, LCD TVs, and monitors
- Primary rectification circuit of inverters found in home appliances such as refrigerators, washing machines, air conditioners, and induction heater systems
- Primary rectification circuit in telecom SMPS

Part Number	Description	Package	V_F at I_F Per Chip, T_J
BU2506 to BU2510	600 V to 1000 V 25 A single-phase bridge rectifier	BU	0.87 V typical at 12.5 A, 125 °C
BU2006 to BU2010	600 V to 1000 V 20 A single-phase bridge rectifier	BU	0.85 V typical at 10 A, 125 °C
BU1506 to BU1510	600 V to 1000 V 15 A single-phase bridge rectifier	BU	0.87 V typical at 7.5 A, 125 °C
BU1206 to BU1210	600 V to 1000 V 12 A single-phase bridge rectifier	BU	0.88 V typical at 6 A, 125 °C
BU1006 to BU1010	600 V to 1000 V 10 A single-phase bridge rectifier	BU	0.88 V typical at 5 A, 125 °C
PB3006 to PB3010	600 V to 1000 V 30 A single-phase bridge rectifier	PB	0.97 V typical at 15 A, +125 °C
PB3506 to PB3510	600 V to 1000 V 35 A single-phase bridge rectifier	PB	0.90 V typical at 17.5 A, +125 °C
PB4006 to PB4010	600 V to 1000 V 40 A single-phase bridge rectifier	PB	0.94 V typical at 20 A, +125 °C
PB5006 to PB5010	600 V to 1000 V 45 A single-phase bridge rectifier	PB	0.90 V typical at 22.5 A, +125 °C



RECTIFIERS

Schottky Rectifiers

Schottky Rectifiers are the ideal product for high-speed and low power loss applications. Their metal-silicon junctions and majority carrier condition result in extremely fast recovery times (less than 10 ns) and very low forward voltage drops. Vishay's unique sputtered metallization process and ion implanted guarding technology result in a highly reliable Schottky product. We offer our customers the opportunity to select the best device for their applications by providing the flexibility of different barrier heights.

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
0.6	SB020 to SB060	Plastic Axial	MPG06	20 - 60	0.55 / 0.70	0.6
1.0	1N5817 to 1N5819	Plastic Axial	DO-204AL (DO-41)	20 - 40	0.45 - 0.60	1.0
1.0	BYM13-20 to BYM13-60	Plastic SMD	DO-213AB (MELF)	20 - 60	0.50 - 0.70	1.0
1.0	MSS1P2L and MSS1P3L	Plastic SMD	Micro SMP	20 - 30	0.50	1.0
1.0	MSS1P3 and MSS1P4	Plastic SMD	Micro SMP	30 - 40	0.55	1.0
1.0	MSS1P5 and MSS1P6	Plastic SMD	Micro SMP	50 - 60	0.68	1.0
1.0	SB120 to SB160	Plastic Axial	DO-204AL (DO-41)	20 - 60	0.48 - 0.65	1.0
1.0	SB1H90 and SB1H100	Plastic Axial	DO-204AL (DO-41)	90 - 100	0.77	1.0
1.0	SGL41-20 to SGL41-60	Plastic SMD	DO-213AB (MELF)	20 - 60	0.50 - 0.70	1.0
1.0	SS12 to SS16	Plastic SMD	DO-214AC (SMA)	20 - 60	0.50 - 0.75	1.0
1.0	B120 to B160	Plastic SMD	DO-214AC (SMA)	20 - 60	0.52 - 0.75	1.0
1.0	SS1H9 and SS1H10	Plastic SMD	DO-214AC (SMA)	90 - 100	0.77	1.0
1.0	SS1P3L and SS1P4L	Plastic SMD	DO-220AA (SMP)	30 - 40	0.45 - 0.48	1.0
1.0	SS1P3 and SS1P4	Plastic SMD	DO-220AA (SMP)	30 - 40	0.50 - 0.53	1.0
1.0	SS1P5L and SS1P6L	Plastic SMD	DO-220AA (SMP)	50 - 60	0.59	1.0
1.1	SL02	Plastic SMD	DO-219AB (SMF)	20	0.42	1.0
1.1	SL03	Plastic SMD	DO-219AB (SMF)	30	0.45	1.0
1.1	SL04	Plastic SMD	DO-219AB (SMF)	40	0.53	1.0
1.5	BYS10-25 to BYS10-45	Plastic SMD	DO-214AC (SMA)	25 - 45	0.5	1.0
1.5	BYS11-90	Plastic SMD	DO-214AC (SMA)	90	0.75	1.0
1.5	BYS12-90	Plastic SMD	DO-214AC (SMA)	90	0.36/0.75	0.1/1.0
1.5	SL12 and SL13	Plastic SMD	DO-214AC (SMA)	20 - 30	0.36 / 0.445	0.1 / 1.0
1.5	SS29 and SS210	Plastic SMD	DO-214AA(SMB)	90 - 100	0.75/0.95	1.0/3.0
2.0	SB220 to SB260	Plastic Axial	DO-204AC (DO-15)	20 - 60	0.5 / 0.68	2.0
2.0	SB220S to SB260S	Plastic Axial	DO-204AL (DO-41)	20 - 60	0.55 / 0.70	2.0
2.0	SB2H90 and SB2H100	Plastic Axial	DO-204AC (DO-15)	90 - 100	0.79	2.0
2.0	MSS2P2 and MSS2P3	Plastic SMD	Micro SMP	20 - 30	0.6	2.0
2.0	B230LA and B240A	Plastic SMD	DO-214AC (SMA)	30 - 40	0.50 - 0.55	2.0
2.0	SL22 and SL23	Plastic SMD	DO-214AA (SMB)	20 - 30	0.395 / 0.44	1.0 / 2.0
2.0	SS22 to SS26	Plastic SMD	DO-214AA (SMB)	20 - 60	0.50 - 0.70	2.0
2.0	SS22S, SS23S and SS24S	Plastic SMD	DO-214AC (SMA)	20 - 40	0.55	2.0
2.0	SS25S and SS26S	Plastic SMD	DO-214AC (SMA)	50 - 60	0.75	2.0
2.0	SS2H9 and SS2H10	Plastic SMD	DO-214AA (SMB)	90 - 100	0.79	2.0
2.0	SS2P2, SS2P3 and SS2P4	Plastic SMD	DO-220AA (SMP)	20 - 40	0.55	2.0
2.0	SS2P2L and SS2P3L	Plastic SMD	DO-220AA (SMP)	20 - 30	0.5	2.0
2.0	SS2P5 and SS2P6	Plastic SMD	DO-220AA (SMP)	50 - 60	0.7	2.0
2.0	SS2PH9 and SS2PH10	Plastic SMD	DO-220AA (SMP)	90 - 100	0.8	2.0

Note:

1. Bold text indicates new product
2. Dual center-tapped device (V_F limit at I_F is per diode)

3. All Schottky die are planar with oxide passivation
4. 35 V to 45 V product/50 V to 60 V product



RECTIFIERS

Schottky Rectifiers

Schottky Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
2.0	SSA23L and SSA24	Plastic SMD	DO-214AC (SMA)	30 - 40	0.45 - 0.49	2.0
3.0	B330LA and B340A	Plastic SMD	DO-214AC (SMA)	30 - 40	0.50 - 0.55	3.0
3.0	B340LB	Plastic SMD	DO-214AA (SMB)	40	0.45	3.0
3.0	B350A and B360A	Plastic SMD	DO-214AC (SMA)	50 - 60	0.72	3.0
3.0	B350B and B360B	Plastic SMD	DO-214AA (SMB)	50 - 60	0.66	3.0
3.0	1N5820 to 1N5822	Plastic Axial	DO-201AD	20 - 40	0.475 - 0.525	3.0
3.0	SB320 to SB360	Plastic Axial	DO-201AD	20 - 60	0.49 - 0.68	3.0
3.0	SB3H90 and SB3H100	Plastic Axial	DO-201AD	90 - 100	0.8	3.0
3.0	SS32 to SS36	Plastic SMD	DO-214AB (SMC)	20 - 60	0.5 - 0.75	3.0
3.0	SS3H9 and SS3H10	Plastic SMD	DO-214AB (SMC)	90 - 100	0.8	3.0
3.0	SS3P3	Plastic SMD	DO-220AA (SMP)	30	0.58	3.0
3.0	SS3P4	Plastic SMD	DO-220AA (SMP)	40	0.6	3.0
3.0	SS3P5 and SS3P6	Plastic SMD	DO-220AA (SMP)	50 - 60	0.78	3.0
3.0	SSA33L and SSA34	Plastic SMD	DO-214AC (SMA)	30 - 40	0.45 - 0.49	3.0
3.0	SS3P3L and SS3P4L	Plastic SMD	TO-277A (SMPC)	30 - 40	0.47	3.0
3.0	SS3P5L and SS3P6L	Plastic SMD	TO-277A (SMPC)	50 - 60	0.60	3.0
4.0	SL42 and SL43	Plastic SMD	DO-214AB (SMC)	20 - 30	0.42 / 0.47	4.0 / 8.0
4.0	SL44	Plastic SMD	DO-214AB (SMC)	40	0.44 / 0.50	4.0 / 8.0
4.0	SSB43L and SSB44	Plastic SMD	DO-214AA (SMB)	30 - 40	0.45 - 0.49	4.0
5.0	SB520 to SB560	Plastic Axial	DO-201AD	20 - 60	0.48 - 0.65	5.0
5.0	SB520A to SB560A	Plastic Axial	DO-201AD	20 - 60	0.50 - 0.70	5.0
5.0	SB5H90 and SB5H100	Plastic Axial	DO-201AD	90 - 100	0.8	5.0
5.0	SSC53L and SSC54	Plastic SMD	DO-214AB (SMC)	30 - 40	0.45 - 0.49	5.0
5.0	SS5P3 and SS5P4	Plastic SMD	TO-277A (SMPC)	50 - 60	0.52	5.0
5.0	SS5P5 and SS5P6	Plastic SMD	TO-277A (SMPC)	50 - 60	0.69	5.0
5.0	SS5P9 and SS5P10	Plastic SMD	TO-277A (SMPC)	90 - 100	0.88	5.0
6.0	SS6P4C	Plastic SMD ⁽²⁾	TO-277A (SMPC)	40	0.65	3.0
7.5	MBR735 to MBR760	Plastic Power-pack	TO-220AC	35 - 60	0.84 / 0.75(4)	15 / 7.5
7.5	MBRB735 to MBRB760	Power-pack SMD	TO-263AB (D ² PAK)	35 - 60	0.84 / 0.75(4)	15 / 7.5
7.5	MBRF735 to MBRF760	Isolated Power-pack	ITO-220AC	35 - 60	0.84 / 0.75(4)	15 / 7.5
7.5	MBR7H35 to MBR7H60	Plastic Power-pack	TO-220AC	35 - 60	0.63 / 0.73(4)	7.5
7.5	MBRB7H35 to MBRB7H60	Power-pack SMD	TO-263AB (D ² PAK)	35 - 60	0.63 / 0.73(4)	7.5
7.5	MBRF7H35 to MBRF7H60	Isolated Power-pack	ITO-220AC	35 - 60	0.63 / 0.73(4)	7.5
8.0	SS8P2L and SS8P3L	Plastic SMD	TO-277A (SMPC)	20 - 30	0.57	8.0
8.0	SS8PH9 and SS8PH10	Plastic SMD	TO-277A (SMPC)	90 - 100	0.9	8.0
8.0	SS8P2CL and SS8P3CL	Plastic SMD ⁽²⁾	TO-277A (SMPC)	20 - 30	0.54	4.0
8.0	SS8P3C and SS8P4C	Plastic SMD ⁽²⁾	TO-277A (SMPC)	30 - 40	0.58	4.0
8.0	SS8P5C and SS8P6C	Plastic SMD ⁽²⁾	TO-277A (SMPC)	50 - 60	0.70	4.0
10.0	MBR1035 to MBR1060	Plastic Power-pack	TO-220AC	35 - 60	0.84 / 0.80(4)	20 / 10.0
10.0	MBRB1035 to MBRB1060	Power-pack SMD	TO-263AB (D ² PAK)	35 - 60	0.84 / 0.80(4)	20 / 10.0
10.0	MBRF1035 to MBRF1060	Isolated Power-pack	ITO-220AC	35 - 60	0.84 / 0.80(4)	20 / 10.0
10.0	MBR10H35 to MBR10H60	Plastic Power-pack	TO-220AC	35 - 60	0.63 / 0.71(4)	10

Note:

1. Bold text indicates new product
2. Dual center-tapped device (V_F limit at I_F is per diode)

3. All Schottky die are planar with oxide passivation
4. 35 V to 45 V product/50 V to 60 V product



RECTIFIERS

Schottky Rectifiers

Schottky Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
10.0	MBRB10H35 to MBRB10H60	Power-pack SMD	TO-263AB (D ² PAK)	35 - 60	0.63 / 0.71(4)	10
10.0	MBRF10H35 to MBRF10H60	Isolated Power-pack	ITO-220AC	35 - 60	0.63 / 0.71(4)	10
10.0	MBR10H90 and MBR10H100	Plastic Power-pack	TO-220AC	90 - 100	0.77	10
10.0	MBRB10H90 and MBR10H100	Power-pack SMD	TO-263AB (D ² PAK)	90 - 100	0.77	10
10.0	MBRF10H90 and MBR10H100	Isolated Power-pack	ITO-220AC	90 - 100	0.77	10
10.0	MBR10H90CT and MBR10H100CT	Plastic Power-pack ⁽²⁾	TO-220AB	90 - 100	0.76	5.0
10.0	MBRB10H90CT and MBRB10H100CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	90 - 100	0.76	5.0
10.0	MBRF10H90CT and MBRF10H100CT	Isolated Power-pack ⁽²⁾	ITO-220AB	90 - 100	0.76	5.0
10.0	MBR10H150CT	Plastic Power-pack ⁽²⁾	TO-220AB	150	0.88	5.0
10.0	SB10H150CT-1	Plastic Power-pack ⁽²⁾	TO-262AA	150	0.88	5.0
10.0	MBRF10H150CT	Isolated Power-pack ⁽²⁾	ITO-220AB	150	0.88	5.0
10.0	SBL1030 and SBL1040	Plastic Power-pack	TO-220AC	30 - 40	0.6	10
10.0	SBLB1030 and SBLB1040	Power-pack SMD	TO-263AB (D ² PAK)	30 - 40	0.6	10
10.0	SBLF1030 and SBLF1040	Isolated Power-pack	ITO-220AC	30 - 40	0.6	10
10.0	SBL1030CT and SBL1040CT	Plastic Power-pack ⁽²⁾	TO-220AB	30 - 40	0.55	5.0
10.0	SBLB1030CT and SBLB1040CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	30 - 40	0.55	5.0
10.0	SBLF1030CT and SBLF1040CT	Isolated Power-pack ⁽²⁾	ITO-220AB	30 - 40	0.55	5.0
10.0	SBL10L25	Plastic Power-pack	TO-220AC	25	0.46	10
10.0	SBLB10L25	Power-pack SMD	TO-263AB (D ² PAK)	25	0.46	10
10.0	SBLF10L25	Isolated Power-pack	ITO-220AC	25	0.46	10
10.0	SBL10L30	Plastic Power-pack	TO-220AC	30	0.52	10
10.0	SBLB10L30	Power-pack SMD	TO-263AB (D ² PAK)	30	0.52	10
10.0	SBLF10L30	Isolated Power-pack	ITO-220AC	30	0.52	10
10.0	SS10P2CL and SS10P3CL	Plastic SMD	TO-277A (SMPC)	20 - 30	0.52	5.0
10.0	SS10P3C and SS10P4C	Plastic SMD	TO-277A (SMPC)	30 - 40	0.53	5
10.0	SS10P3 and SS10P4	Plastic SMD	TO-277A (SMPC)	30 - 40	0.56	10
10.0	SS10P5 and SS10P6	Plastic SMD	TO-277A (SMPC)	50 - 60	0.67	10
10.0	SS10PH45	Plastic SMD	TO-277A (SMPC)	45	0.72	10
10.0	SS10PH9 and SS10PH10	Plastic SMD	TO-277A (SMPC)	90 - 100	0.88	10
12.0	SS12P2L and SS12P3L	Plastic SMD	TO-277A (SMPC)	20 - 30	0.56	12
12.0	SS12P4C	Plastic SMD	TO-277A (SMPC)	40	0.52	6
12.0	SS12P4S	Plastic SMD	TO-277A (SMPC)	40	0.60	12
15.0	SB15H45	Plastic Axial	P600	45	0.64	15.0
15.0	MBR1535CT to MBR1560CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.84 / 0.75(4)	15 / 7.5
15.0	MBRB1535CT to MBRB1560CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.84 / 0.75(4)	15 / 7.5
15.0	MBRF1535CT to MBRF1560CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.84 / 0.75(4)	15 / 7.5
15.0	MBR15H35CT to MBR15H60CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.63 / 0.73(4)	7.5
15.0	MBRB15H35CT to MBRB15H60CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.63 / 0.73(4)	7.5
15.0	MBRF15H35CT to MBRF15H60CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.63 / 0.73(4)	7.5
15.0	SS15P3S	Plastic SMD	TO-277A (SMPC)	30	0.57	15
16.0	MBR1635 to MBR1660	Plastic Power-pack	TO-220AC	35 - 60	0.63 / 0.75(4)	16.0
16.0	MBRB1635 to MBRB1660	Power-pack SMD	TO-263AB (D ² PAK)	35 - 60	0.63 / 0.75(4)	16.0

Note:

1. Bold text indicates new product
2. Dual center-tapped device (V_F limit at I_F is per diode)

3. All Schottky die are planar with oxide passivation
4. 35 V to 45 V product/50 V to 60 V product



RECTIFIERS

Schottky Rectifiers

Schottky Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
16.0	MBRF1635 to MBRF1660	Isolated Power-pack	ITO-220AC	35 - 60	0.63 / 0.75(4)	16.0
16.0	MBR16H35 to MBR16H60	Plastic Power-pack	TO-220AC	35 - 60	0.66 / 0.73(4)	16.0
16.0	MBRB16H35 to MBRB16H60	Power-pack SMD	TO-263AB (D ² PAK)	35 - 60	0.66 / 0.73(4)	16.0
16.0	MBRF16H35 to MBRF16H60	Isolated Power-pack	ITO-220AC	35 - 60	0.66 / 0.73(4)	16.0
16.0	SBL1630CT and SBL1640CT	Plastic Power-pack ⁽²⁾	TO-220AB	30 - 40	0.55	8.0
16.0	SBLB1630CT and SBLB1640CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	30 - 40	0.55	8.0
16.0	SBLF1630CT and SBLF1640CT	Isolated Power-pack ⁽²⁾	ITO-220AB	30 - 40	0.55	8.0
20.0	MBR2035CT to MBR2060CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.84 / 0.80(4)	20 / 10.0
20.0	MBRB2035CT to MBRB2060CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.84 / 0.80(4)	20 / 10.0
20.0	MBRF2035CT to MBRF2060CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.84 / 0.80(4)	20 / 10.0
20.0	MBR20H35CT to MBR20H60CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.63 / 0.71(4)	10.0
20.0	MBRB20H35CT to MBRB20H60CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.63 / 0.71(4)	10.0
20.0	MBRF20H35CT to MBRF20H60CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.63 / 0.71(4)	10.0
20.0	MBR20H90CT and MBR20H100CT	Plastic Power-pack ⁽²⁾	TO-220AB	90 - 100	0.77	10.0
20.0	MBRB20H90CT and MBRB20H100CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	90 - 100	0.77	10.0
20.0	MBRF20H90CT and MBRF20H100CT	Isolated Power-pack ⁽²⁾	ITO-220AB	90 - 100	0.77	10.0
20.0	MBR20H90CTG and MBR20H100CTG	Plastic Power-pack ⁽²⁾	TO-220AB	90 - 100	0.85	10.0
20.0	MBR20H150CT	Plastic Power-pack ⁽²⁾	TO-220AB	150	0.9	10.0
20.0	SB20H150CT-1	Plastic Power-pack ⁽²⁾	TO-262AA	150	0.9	10.0
20.0	MBRF20H150CT	Isolated Power-pack ⁽²⁾	ITO-220AB	150	0.9	10.0
20.0	MBR20H200CT	Plastic Power-pack ⁽²⁾	TO-220AB	200	0.88	10.0
20.0	SB20H200CT-1	Power-pack SMD ⁽²⁾	TO-262AA	200	0.88	10.0
20.0	MBRF20H200CT	Isolated Power-pack ⁽²⁾	ITO-220AB	200	0.88	10.0
20.0	M2035S and M2045S	Plastic Power-pack	TO-220AB	35 - 45	0.7	20.0
20.0	Mi2050C to Mi2060C	Plastic Power-pack ⁽²⁾	TO-262AA	50 - 60	0.74	10.0
20.0	SBL2030CT and SBL2040CT	Plastic Power-pack ⁽²⁾	TO-220AB	30 - 40	0.6	10.0
20.0	SBLB2030CT and SBLB2040CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	30 - 40	0.6	10.0
20.0	SBLF2030CT and SBLF2040CT	Isolated Power-pack ⁽²⁾	ITO-220AB	30 - 40	0.6	10.0
20.0	SBL2030PT and SBL2040PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	30 - 40	0.55	10.0
25.0	SBL25L20CT to SBL25L30CT	Plastic Power-pack ⁽²⁾	TO-220AB	20 - 30	0.49	12.5
25.0	SBLB25L20CT to SBLB25L30CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	20 - 30	0.49	12.5
25.0	SBLF25L20CT to SBLF25L30CT	Isolated Power-pack ⁽²⁾	ITO-220AB	20 - 30	0.49	12.5
30.0	MBR2535CT to MBR2560CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.82 / 0.75(4)	30 / 15
30.0	MBRB2535CT to MBRB2560CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.82 / 0.75(4)	30 / 15
30.0	MBRF2535CT to MBRF2560CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.82 / 0.75(4)	30 / 15
30.0	MBR25H35CT to MBR25H60CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.64 / 0.70(4)	15
30.0	MBRB25H35CT to MBRB25H60CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.64 / 0.70(4)	15
30.0	MBRF25H35CT to MBRF25H60CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.64 / 0.70(4)	15
30.0	MBR3035CT and MBR3045CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 45	^{0.76}	30
30.0	MBRB3035CT and MBRB3045CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 45	0.76	30
30.0	MBRF3035CT and MBRF3045CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 45	0.76	30
30.0	MBR30H35CT to MBR30H60CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.62 / 0.68(4)	15
30.0	MBRB30H35CT to MBRB30H60CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	35 - 60	0.62 / 0.68(4)	15
30.0	MBRF30H35CT to MBRF30H60CT	Isolated Power-pack ⁽²⁾	ITO-220AB	35 - 60	0.62 / 0.68(4)	15
30.0	MBR3035PT to MBR3060PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	35 - 60	0.76 / 0.75(4)	30 / 20
30.0	MBR30H35PT to MBR30H60PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	35 - 60	0.66 / 0.74(4)	20
30.0	MBR30H90CT and MBR30H100CT	Plastic Power-pack ⁽²⁾	TO-220AB	90 - 100	0.82	15
30.0	MBRF30H90CT and MBRF30H100CT	Isolated Power-pack ⁽²⁾	ITO-220AB	90 - 100	0.82	15

Note:

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RECTIFIERS

Schottky Rectifiers

Schottky Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
30.0	MBRB30H90CT and MBRB30H100CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	90 - 100	0.82	15
30.0	MBR30H90PT and MBR30H100PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	90 - 100	0.82	15
30.0	MBR30H150CT	Plastic Power-pack ⁽²⁾	TO-220AB	150	0.90	15
30.0	SB30H150CT-1	Plastic Power-pack ⁽²⁾	TO-262AA	150	0.90	15
30.0	MBRF30H150CT	Isolated Power-pack ⁽²⁾	ITO-220AB	150	0.90	15
30.0	M3035S and M3045S	Plastic Power-pack	TO-220AB	35 - 45	0.70	30
30.0	MB3035S and MB3045S	Power-pack SMD	TO-263AB (D ² PAK)	35 - 45	0.70	30
30.0	MI3035S and MI3045S	Plastic Power-pack	TO-262AA	35 - 45	0.70	30
30.0	M3060C	Plastic Power-pack ⁽²⁾	TO-220AB	60	0.72	15
30.0	MI3060C	Plastic Power-pack ⁽²⁾	TO-262AA	60	0.72	15
30.0	MF3060C	Isolated Power-pack ⁽²⁾	ITO-220AB	60	0.72	15
30.0	M30L40C	Plastic Power-pack ⁽²⁾	TO-220AB	40	0.55	15
30.0	M30L45C	Plastic Power-pack ⁽²⁾	TO-220AB	45	60	15
30.0	SBL3030PT and SBL3040PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	30 - 40	0.55	15
30.0	SD241P	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	45	0.47 / 0.60	10 / 20 (125 °C)
40.0	MBR4035PT to MBR4060PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	35 - 60	0.70 / 0.72(4)	20
40.0	MBR40H35CT to MBR40H60CT	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.64 / 0.68(4)	20
40.0	MBR40H35PT to MBR40H60PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	35 - 60	0.63 / 0.69(4)	20
40.0	SBL4030PT to SBL4040PT	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	30 - 40	0.58	20
60.0	MBR60100CT	Plastic Power-pack ⁽²⁾	TO-220AB	100	0.82 / 1.0	30 / 60
60.0	M6035C to M6060C	Plastic Power-pack ⁽²⁾	TO-220AB	35 - 60	0.61/0.65(4)	30
60.0	M6035P to M6060P	Plastic Power-pack ⁽²⁾	TO-247AD (TO-3P)	35 - 60	0.60 / 0.64(4)	30

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RECTIFIERS

Schottky Rectifiers

TMBS® (Trench MOS Barrier Schottky) Rectifiers

I _{F(AV)} (A)	Device ⁽¹⁾	Package		V _(BR) Range (V)	Max V _F at I _F	
		Family ⁽³⁾	Type		(V)	(A)
2	VSB220S	Plastic Axial	DO-204AL (DO-41)	200	1.23	2.0
2	VSSA210	Plastic SMD	DO-214AC (SMA)	100	0.70	2.0
2	VSB3200S	Plastic Axial	DO-204AC (DO-15)	200	1.40	3.0
2	VSB3200	Plastic Axial	DO-201AD	200	1.20	3.0
3	V3P6	Plastic SMD	DO-220AA (SMP)	60	0.63	3.0
3	V3PAL45	Plastic SMD	DO-221BC (SMPA)	45	0.54	3.0
3	V3PAN50	Plastic SMD	DO-221BC (SMPA)	50	0.54	3.0
3	VSSA310S	Plastic SMD	DO-214AC (SMA)	100	0.80	3.0
3	VSSB310	Plastic SMD	DO-214AA(SMB)	100	0.7	3.0
3	VSSA36S	Plastic SMD	DO-214AC (SMA)	60	0.63	3.0
3	VSSA3L6S	Plastic SMD	DO-214AC (SMA)	60	0.58	3.0
3	VSSAF3L45	Plastic SMD	DO-221AC (SlimSMA)	45	0.54	3.0
3	VSSB3L6S	Plastic SMD	DO-214AA(SMB)	60	0.59	3.0
4	V4PAL45	Plastic SMD	DO-221BC (SMPA)	45	0.57	4.0
4	V4PAN50	Plastic SMD	DO-221BC (SMPA)	50	0.59	4.0
4	VSSB410S	Plastic SMD	DO-214AA(SMB)	100	0.77	4.0
4	VSSB420S	Plastic SMD	DO-214AA(SMB)	200	1.9	4.0
5	VSSAF5L45	Plastic SMD	DO-221AC (SlimSMA)	45	0.56	5.0
5	VT5200	Plastic Power-pack	TO-220AC	200	1.60	5.0
5	VSSC520S	Plastic SMD	DO-214AB(SMC)	200	1.7	5.0
5	VFT5200	Isolated Power-pack	ITO-220AC	200	1.60	5.0
5	VBT5200	Power-pack SMD	TO-263AB (D ² PAK)	200	1.60	5.0
5	VIT5200	Plastic Power-pack	TO-262AA	200	1.60	5.0
5	VT5202	Plastic Power-pack	TO-220AC	200	0.88	5.0
5	VBT5202	Power-pack SMD	TO-263AB (D ² PAK)	200	0.88	5.0
5	VIT5202	Plastic Power-pack	TO-262AA	200	0.88	5.0
6	V6WL45C	Power-pack SMD	TO-252 (D-PAK)	45	0.52	3.0
6	V6W60C	Power-pack SMD	TO-252 (D-PAK)	60	0.57	3.0
6	V6WM100C	Power-pack SMD	TO-252 (D-PAK)	100	0.74	3.0
7	VT760	Plastic Power-pack	TO-220AC	60	0.80	7.5
7	VFT760	Isolated Power-pack	ITO-220AC	60	0.80	7.5
7	VBT760	Power-pack SMD	TO-263AB (D ² PAK)	60	0.80	7.5
7	VIT760	Plastic Power-pack	TO-262AA	60	0.80	7.5
7	VSSB7L45	Plastic SMD	DO-214AA(SMB)	45	0.57	7.0
8	V8P10	Plastic SMD	TO-277A (SMPC)	100	0.68	8.0
8	V8P12	Plastic SMD	TO-277A (SMPC)	120	0.84	8.0
8	V8P20	Plastic SMD	TO-277A (SMPC)	200	1.40	8.0
8	V8PAL45	Plastic SMD	DO-221BC (SMPA)	45	0.57	8.0
8	V8PAN50	Plastic SMD	DO-221BC (SMPA)	50	0.56	8.0
8	V8PAL50	Plastic SMD	DO-221BC (SMPA)	50	0.57	8.0
8	V8PM12	Plastic SMD	TO-277A (SMPC)	120	0.84	8.0
8	VSSC8L45	Plastic SMD	DO-214AB (SMC)	45	0.56	8.0

Note:

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RECTIFIERS

Schottky Rectifiers

TMBS®, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
10	V10170C	Plastic Power-pack	TO-220AB	170	1.03	5.0
10	V10D45C	Plastic SMD	TO-263AC (SMPD)	45	0.58	5.0
10	V10D60C	Plastic SMD	TO-263AC (SMPD)	60	0.70	5.0
10	V10D100C	Plastic SMD	TO-263AC (SMPD)	100	0.75	5.0
10	V10D120C	Plastic SMD	TO-263AC (SMPD)	120	0.94	5.0
10	V10P10	Plastic SMD	TO-277A (SMPC)	100	0.68	10
10	V10P12	Plastic SMD	TO-277A (SMPC)	120	0.82	10
10	V10P20	Plastic SMD	TO-277A (SMPC)	200	1.34	10
10	V10P45	Plastic SMD	TO-277A (SMPC)	45	0.57	10
10	V10P45S	Plastic SMD	TO-277A (SMPC)	45	0.57	10
10	V10PL45	Plastic SMD	TO-277A (SMPC)	45	0.52	10
10	V10PM12	Plastic SMD	TO-277A (SMPC)	120	0.83	10
10	V10PN50	Plastic SMD	TO-277A (SMPC)	50	0.55	10
10	V10WL45	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	45	0.57	10
10	V10WM100	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	100	0.75	10
10	MBR1090 and MBR10100	Plastic Power-pack	TO-220AC	90 - 100	0.80	10
	MBRF1090 and MBRF10100	Isolated Power-pack	ITO-220AC	90 - 100	0.80	10
	MBRB1090 and MBRB10100	Power-pack SMD	TO-263AB (D ² PAK)	90 - 100	0.80	10
10	MBR1090CT and MBR10100CT	Plastic Power-pack ⁽²⁾	TO-220AB	90 - 100	0.85	5.0
10	MBRF1090CT and MBRF10100CT	Isolated Power-pack ⁽²⁾	ITO-220AB	90 - 100	0.85	5.0
10	VT1060C	Plastic Power-pack ⁽²⁾	TO-220AB	60	0.70	5.0
	VFT1060C	Isolated Power-pack ⁽²⁾	ITO-220AB	60	0.70	5.0
	VBT1060C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	60	0.70	5.0
	VIT1060C	Plastic Power-pack ⁽²⁾	TO-262AA	60	0.70	5.0
10	VT1080C	Plastic Power-pack ⁽²⁾	TO-220AB	80	0.72	5.0
	VFT1080C	Isolated Power-pack ⁽²⁾	ITO-220AB	80	0.72	5.0
	VBT1080C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	80	0.72	5.0
	VIT1080C	Plastic Power-pack ⁽²⁾	TO-262AA	80	0.72	5.0
10	VT1080S	Plastic Power-pack	TO-220AB	80	0.81	10
	VFT1080S	Isolated Power-pack	ITO-220AB	80	0.81	10
	VBT1080S	Power-pack SMD	TO-263AB (D ² PAK)	80	0.81	10
	VIT1080S	Plastic Power-pack	TO-262AA	80	0.81	10
10	V10150C	Plastic Power-pack ⁽²⁾	TO-220AB	150	1.41	5
	VF10150C	Isolated Power-pack ⁽²⁾	ITO-220AB	150	1.41	5
	VB10150C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	150	1.41	5
	VI10150C	Plastic Power-pack ⁽²⁾	TO-262AA	150	1.41	5
10	V10150S	Plastic Power-pack	TO-220AB	150	1.2	10
	VF10150S	Isolated Power-pack	ITO-220AB	150	1.2	10
	VB10150S	Power-pack SMD	TO-263AB (D ² PAK)	150	1.2	10
	VI10150S	Plastic Power-pack	TO-262AA	150	1.2	10

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RECTIFIERS

Schottky Rectifiers

TMBS®, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
10	VT10200C	Plastic Power-pack ⁽²⁾	TO-220AB	200	1.60	5.0
	VFT10200C	Isolated Power-pack ⁽²⁾	ITO-220AB	200	1.60	5.0
	VBT10200C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	1.60	5.0
	VIT10200C	Plastic Power-pack ⁽²⁾	TO-262AA	200	1.60	5.0
10	VT10202C	Plastic Power-pack ⁽²⁾	TO-220AB	200	0.88	5.0
	VBT10202C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	0.88	5.0
	VIT10202C	Plastic Power-pack ⁽²⁾	TO-262AA	200	0.88	5.0
10	VT1045C	Plastic Power-pack ⁽²⁾	TO-220AB	45	0.58	5.0
	VFT1045C	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.58	5.0
	VBT1045C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.58	5.0
	VIT1045C	Plastic Power-pack ⁽²⁾	TO-262AA	45	0.58	5.0
10	VT1045CBP	Plastic Power-pack ⁽²⁾	TO-220AB	45	0.58	5.0
	VFT1045CBP	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.58	5.0
	VBT1045CBP	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.58	5.0
10	VT1045BP	Plastic Power-pack ⁽²⁾	TO-220AC	45	0.68	10
	VFT1045BP	Isolated Power-pack ⁽²⁾	ITO-220AC	45	0.68	10
	VBT1045BP	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.68	10
12	V12P10	Plastic SMD	TO-277A (SMPC)	100	0.70	12
	V12P12	Plastic SMD	TO-277A (SMPC)	120	0.80	12
	V12PM12	Plastic SMD	TO-277A (SMPC)	120	0.83	12
	V12W60C	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	60	0.62	6
	V12WM100C	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	100	0.75	6
15	V15P45	Plastic SMD	TO-277A (SMPC)	45	0.58	15
15	V15P45S	Plastic SMD	TO-277A (SMPC)	45	0.58	15
15	V15PL50	Plastic SMD	TO-277A (SMPC)	50	0.57	15
15	V15PN50	Plastic SMD	TO-277A (SMPC)	50	0.56	15
15	VSB1545	Plastic Axial	P600	45	0.59	15
15	V15W60C	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	60	0.65	7.5
15	V15WL45C	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	45	0.56	7.5
15	VSB15L45	Plastic Axial	P600	45	0.57	15
20	MBR2090CT and MBR20100CT	Plastic Power-pack ⁽²⁾	TO-220AB	100	0.80	10
	MBRF2090CT and MBRF20100CT	Isolated Power-pack ⁽²⁾	ITO-220AB	100	0.80	10
	MBRB2090CT & MBRB20100CT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	100	0.80	10
20	V20DL45	Plastic SMD	TO-263AC (SMPD)	45	0.64	20
20	V20DL45BP	Plastic SMD	TO-263AC (SMPD)	45	0.64	20
20	V20DM120C	Plastic SMD	TO-263AC (SMPD)	120	0.93	10
20	V20PL50	Plastic SMD	TO-277A (SMPC)	50	0.59	20
20	V20PL60	Plastic SMD	TO-277A (SMPC)	60	0.59	20
20	V20W60C	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	60	0.65	10
20	V20WL45	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	45	0.62	20

Note:

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RECTIFIERS

Schottky Rectifiers

TMBS®, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
20	V20WM100C	Plastic Power-pack ⁽²⁾	TO-252 (D-PAK)	100	0.82	10
20	VSB2045	Plastic Axial	P600	45	0.58	20
20	VSB20L45	Plastic Axial	P600	45	0.56	20
20	VT2045C	Plastic Power-pack ⁽²⁾	TO-220AB	45	0.58	10
	VFT2045C	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.58	10
	VBT2045C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.58	10
	VIT2045C	Plastic Power-pack ⁽²⁾	TO-262AA	45	0.58	10
20	VT2045CBP	Plastic Power-pack ⁽²⁾	TO-220AB	45	0.58	10
	VFT2045CBP	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.58	10
	VBT2045CBP	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.58	10
20	VT2045BP	Plastic Power-pack ⁽²⁾	TO-220AC	45	0.66	20
	VFT2045BP	Isolated Power-pack ⁽²⁾	ITO-220AC	45	0.66	20
	VBT2045BP	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.66	20
20	VT2060C	Plastic Power-pack ⁽²⁾	TO-220AB	60	0.65	10
	VFT2060C	Isolated Power-pack ⁽²⁾	ITO-220AB	60	0.65	10
	VBT2060C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	60	0.65	10
	VIT2060C	Plastic Power-pack ⁽²⁾	TO-262AA	60	0.65	10
20	VT2060G	Plastic Power-pack ⁽²⁾	TO-220AB	60	0.90	10
	VFT2060G	Isolated Power-pack ⁽²⁾	ITO-220AB	60	0.90	10
	VBT2060G	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	60	0.90	10
	VIT2060G	Plastic Power-pack ⁽²⁾	TO-262AA	60	0.90	10
20	VT2080C	Plastic Power-pack ⁽²⁾	TO-220AB	80	0.81	10
	VFT2080C	Isolated Power-pack ⁽²⁾	ITO-220AB	80	0.81	10
	VBT2080C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	80	0.81	10
	VIT2080C	Plastic Power-pack ⁽²⁾	TO-262AA	80	0.81	10
20	VT2080S	Plastic Power-pack	TO-220AB	80	0.92	20
	VFT2080S	Isolated Power-pack	ITO-220AB	80	0.92	20
	VBT2080S	Power-pack SMD	TO-263AB (D ² PAK)	80	0.92	20
	VIT2080S	Plastic Power-pack	TO-262AA	80	0.92	20
20	V20100C	Plastic Power-pack ⁽²⁾	TO-220AB	100	0.79	10
	VF20100C	Isolated Power-pack ⁽²⁾	ITO-220AB	100	0.79	10
	VB20100C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	100	0.79	10
	VI20100C	Plastic Power-pack ⁽²⁾	TO-262AA	100	0.79	10
20	V20100R	Plastic Power-pack ⁽²⁾	TO-220AB	100	0.90	10
	VF20100R	Isolated Power-pack ⁽²⁾	ITO-220AB	100	0.90	10
20	V20100S	Plastic Power-pack	TO-220AB	100	0.90	20
	VB20100S	Power-pack SMD	TO-263AB (D ² PAK)	100	0.90	20
	VF20100S	Isolated Power-pack	ITO-220AB	100	0.90	20
	VI20100S	Plastic Power-pack	TO-262AA	100	0.90	20
20	V20100SG	Plastic Power-pack	TO-220AB	100	1.07	20
	VF20100SG	Isolated Power-pack	ITO-220AB	100	1.07	20
	VB20100SG	Plastic Power-pack	TO-263AB (D ² PAK)	100	1.07	20

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RECTIFIERS

Schottky Rectifiers

TMBS®, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
20	VI20100SG	Plastic Power-pack	TO-262AA	100	1.07	20
20	V20120C	Plastic Power-pack ⁽²⁾	TO-220AB	120	0.90	10
	VF20120C	Isolated Power-pack ⁽²⁾	ITO-220AB	120	0.90	10
	VB20120C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	120	0.90	10
	VI20120C	Plastic Power-pack ⁽²⁾	TO-262AA	120	0.90	10
20	V20M120C	Plastic Power-pack ⁽²⁾	TO-220AB	120	0.91	10
	VF20M120C	Isolated Power-pack ⁽²⁾	ITO-220AB	120	0.91	10
	VB20M120C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	120	0.91	10
	VI20M120C	Plastic Power-pack ⁽²⁾	TO-262AA	120	0.91	10
20	V20120S	Plastic Power-pack	TO-220AB	120	1.12	20
	VF20120S	Isolated Power-pack	ITO-220AB	120	1.12	20
	VB20120S	Power-pack SMD	TO-263AB (D ² PAK)	120	1.12	20
	VI20120S	Plastic Power-pack	TO-262AA	120	1.12	20
20	V20120SG	Plastic Power-pack	TO-220AB	120	1.33	20
	VF20120SG	Isolated Power-pack	ITO-220AB	120	1.33	20
	VB20120SG	Power-pack SMD	TO-263AB (D ² PAK)	120	1.33	20
	VI20120SG	Plastic Power-pack	TO-262AA	120	1.33	20
20	V20150C	Plastic Power-pack ⁽²⁾	TO-220AB	150	1.20	10
	VF20150C	Isolated Power-pack ⁽²⁾	ITO-220AB	150	1.20	10
	VB20150C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	150	1.20	10
	VI20150C	Plastic Power-pack ⁽²⁾	TO-262AA	150	1.20	10
20	V20150S	Plastic Power-pack	TO-220AB	150	1.43	20
	VF20150S	Isolated Power-pack	ITO-220AB	150	1.43	20
	VB20150S	Power-pack SMD	TO-263AB (D ² PAK)	150	1.43	20
	VI20150S	Plastic Power-pack	TO-262AA	150	1.43	20
20	V20150SG	Plastic Power-pack	TO-220AB	150	1.60	20
	VF20150SG	Isolated Power-pack	ITO-220AB	150	1.60	20
	VB20150SG	Power-pack SMD	TO-263AB (D ² PAK)	150	1.60	20
	VI20150SG	Plastic Power-pack	TO-262AA	150	1.60	20
20	V20200C	Plastic Power-pack ⁽²⁾	TO-220AB	200	1.60	10
	VF20200C	Isolated Power-pack ⁽²⁾	ITO-220AB	200	1.60	10
	VB20200C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	1.60	10
	VI20200C	Plastic Power-pack ⁽²⁾	TO-262AA	200	1.60	10
20	V20202C	Plastic Power-pack ⁽²⁾	TO-220AB	200	0.90	10
	VB20202C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	0.90	10
	VI20202C	Plastic Power-pack ⁽²⁾	TO-262AA	200	0.90	10
20	V20200G	Plastic Power-pack ⁽²⁾	TO-220AB	200	1.70	10
	VF20200G	Isolated Power-pack ⁽²⁾	ITO-220AB	200	1.70	10
	VB20200G	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	1.70	10
	VI20200G	Plastic Power-pack ⁽²⁾	TO-262AA	200	1.70	10

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RECTIFIERS

Schottky Rectifiers

TMBS®, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
20	V20200G	Plastic Power-pack ⁽²⁾	TO-220AB	200	0.92	10
	VB20200G	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	0.92	10
	VI20200G	Plastic Power-pack ⁽²⁾	TO-262AA	200	0.92	10
25	V25PL60	Plastic SMD	TO-277A (SMPC)	60	0.63	25
30	V30D45C	Plastic SMD	TO-263AC (SMPD)	45	0.57	15
30	V30DL45	Plastic SMD	TO-263AC (SMPD)	45	0.65	30
30	V30DL45BP	Plastic SMD	TO-263AC (SMPD)	45	0.65	30
30	V30D60C	Plastic SMD	TO-263AC (SMPD)	60	0.70	15
30	V30D60CL	Plastic SMD	TO-263AC (SMPD)	60	0.61	15
30	V30DL50C	Plastic SMD	TO-263AC (SMPD)	50	0.57	15
30	V30DM120C	Plastic SMD	TO-263AC (SMPD)	120	0.97	15
30	VT3045C	Plastic Power-pack ⁽²⁾	TO-220AB	45	0.57	15
	VFT3045C	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.57	15
	VBT3045C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.57	15
	VIT3045C	Plastic Power-pack ⁽²⁾	TO-262AA	45	0.57	15
30	VT3045CBP	Plastic Power-pack ⁽²⁾	TO-220AB	45	0.57	15
	VFT3045CBP	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.57	15
	VBT3045CBP	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.57	15
30	VT3045BP	Plastic Power-pack ⁽²⁾	TO-220AC	45	0.70	30
	VFT3045BP	Isolated Power-pack ⁽²⁾	ITO-220AC	45	0.70	30
	VBT3045BP	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	45	0.70	30
30	VT3060C	Plastic Power-pack ⁽²⁾	TO-220AB	60	0.70	15
	VFT3060C	Isolated Power-pack ⁽²⁾	ITO-220AB	60	0.70	15
	VBT3060C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	60	0.70	15
	VIT3060C	Plastic Power-pack ⁽²⁾	TO-262AA	60	0.70	15
30	VT3060G	Plastic Power-pack ⁽²⁾	TO-220AB	60	0.73	15
	VFT3060G	Isolated Power-pack ⁽²⁾	ITO-220AB	60	0.73	15
	VBT3060G	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	60	0.73	15
	VIT3060G	Plastic Power-pack ⁽²⁾	TO-262AA	60	0.73	15
30	VT3080C	Plastic Power-pack ⁽²⁾	TO-220AB	80	0.82	15
	VFT3080C	Isolated Power-pack ⁽²⁾	ITO-220AB	80	0.82	15
	VBT3080C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	80	0.82	15
	VIT3080C	Plastic Power-pack ⁽²⁾	TO-262AA	80	0.82	15
30	VT3080S	Plastic Power-pack	TO-220AB	80	0.95	30
	VFT3080S	Isolated Power-pack	ITO-220AB	80	0.95	30
	VBT3080S	Power-pack SMD	TO-263AB (D ² PAK)	80	0.95	30
	VIT3080S	Plastic Power-pack	TO-262AA	80	0.95	30
30	V30100C	Plastic Power-pack ⁽²⁾	TO-220AB	100	0.80	15
	VF30100C	Isolated Power-pack ⁽²⁾	ITO-220AB	100	0.80	15
	VB30100C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	100	0.80	15
	VI30100C	Plastic Power-pack ⁽²⁾	TO-262AA	100	0.80	15

Note:

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RECTIFIERS

Schottky Rectifiers

TMBS®, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
30	V30100S	Plastic Power-pack	TO-220AB	100	0.91	30
	VF30100S	Isolated Power-pack	ITO-220AB	100	0.91	30
	VB30100S	Power-pack SMD	TO-263AB (D ² PAK)	100	0.91	30
	VI30100S	Plastic Power-pack	TO-262AA	100	0.91	30
30	V30100SG	Plastic Power-pack	TO-220AB	120	1.00	30
	VF30100SG	Isolated Power-pack	ITO-220AB	120	1.00	30
	VB30100SG	Power-pack SMD	TO-263AB (D ² PAK)	120	1.00	30
	VI30100SG	Plastic Power-pack	TO-262AA	120	1.00	30
30	V30120C	Plastic Power-pack ⁽²⁾	TO-220AB	120	0.97	15
	VF30120C	Isolated Power-pack ⁽²⁾	ITO-220AB	120	0.97	15
	VB30120C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	120	0.97	15
	VI30120C	Plastic Power-pack ⁽²⁾	TO-262AA	120	0.97	15
30	V30M120C	Plastic Power-pack⁽²⁾	TO-220AB	120	0.98	15
	VF30M120C	Isolated Power-pack⁽²⁾	ITO-220AB	120	0.98	15
	VB30M120C	Power-pack SMD⁽²⁾	TO-263AB (D²PAK)	120	0.98	15
	VI30M120C	Plastic Power-pack⁽²⁾	TO-262AA	120	0.98	15
30	V30120S	Plastic Power-pack	TO-220AB	120	1.10	30
	VF30120S	Isolated Power-pack	ITO-220AB	120	1.10	30
	VB30120S	Power-pack SMD	TO-263AB (D ² PAK)	120	1.10	30
	VI30120S	Plastic Power-pack	TO-262AA	120	1.10	30
30	V30120SG	Plastic Power-pack	TO-220AB	120	1.28	30
	VF30120SG	Isolated Power-pack	ITO-220AB	120	1.28	30
	VB30120SG	Power-pack SMD	TO-263AB (D ² PAK)	120	1.28	30
	VI30120SG	Plastic Power-pack	TO-262AA	120	1.28	30
30	V30150C	Plastic Power-pack ⁽²⁾	TO-220AB	150	1.36	15
	VF30150C	Isolated Power-pack ⁽²⁾	ITO-220AB	150	1.36	15
	VB30150C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	150	1.36	15
	VI30150C	Plastic Power-pack ⁽²⁾	TO-262AA	150	1.36	15
30	V30200C	Plastic Power-pack ⁽²⁾	TO-220AB	200	1.10	15
	VF30200C	Isolated Power-pack ⁽²⁾	ITO-220AB	200	1.10	15
	VB30200C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	1.10	15
	VI30200C	Plastic Power-pack ⁽²⁾	TO-262AA	200	1.10	15
30	V30202C	Plastic Power-pack ⁽²⁾	TO-220AB	200	0.88	15
	VB30202C	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200	0.88	15
	VI30202C	Plastic Power-pack ⁽²⁾	TO-262AA	200	0.88	15
30	V30100PW	Plastic Power-pack ⁽²⁾	TO-3PW	100	0.91	15
40	V40DL45	Plastic SMD	TO-263AC (SMPD)	45	0.66	40
40	V40DL45BP	Plastic SMD	TO-263AC (SMPD)	45	0.66	40

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RECTIFIERS

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$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
40	VT4045C	Plastic Power-pack ⁽²⁾	T0-220AB	45	0.58	20
	VFT4045C	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.58	20
	VBT4045C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	45	0.58	20
	VIT4045C	Plastic Power-pack ⁽²⁾	T0-262AA	45	0.58	20
40	VT4045BP	Plastic Power-pack ⁽²⁾	T0-220AC	45	0.67	40
	VFT4045BP	Isolated Power-pack ⁽²⁾	ITO-220AC	45	0.67	40
	VBT4045BP	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	45	0.67	40
40	V40100C	Plastic Power-pack ⁽²⁾	T0-220AB	100	0.73	20
	VF40100C	Isolated Power-pack ⁽²⁾	ITO-220AB	100	0.73	20
	VB40100C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	100	0.73	20
	VI40100C	Plastic Power-pack ⁽²⁾	T0-262AA	100	0.73	20
40	V40100G	Plastic Power-pack ⁽²⁾	T0-220AC	100	0.81	20
	VF40100G	Isolated Power-pack ⁽²⁾	ITO-220AB	100	0.81	20
	VB40100G	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	100	0.81	20
	VI40100G	Plastic Power-pack ⁽²⁾	T0-262AA	100	0.81	20
40	V40100K	Plastic Power-pack ⁽²⁾	T0-220AB	100	0.82	20
40	V40120C	Plastic Power-pack ⁽²⁾	T0-220AB	120	0.88	20
	VF40120C	Isolated Power-pack ⁽²⁾	ITO-220AB	120	0.88	20
	VB40120C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	120	0.88	20
	VI40120C	Plastic Power-pack ⁽²⁾	T0-262AA	120	0.88	20
40	V40M120C	Plastic Power-pack ⁽²⁾	T0-220AB	120	0.89	20
	VF40M120C	Isolated Power-pack ⁽²⁾	ITO-220AB	120	0.89	20
	VB40M120C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	120	0.89	20
	VI40M120C	Plastic Power-pack ⁽²⁾	T0-262AA	120	0.89	20
40	V40150C	Plastic Power-pack ⁽²⁾	T0-220AB	150	1.43	20
	VF40150C	Isolated Power-pack ⁽²⁾	ITO-220AB	150	1.43	20
	VB40150C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	150	1.43	20
	VI40150C	Plastic Power-pack ⁽²⁾	T0-262AA	150	1.43	20
40	V40170C	Plastic Power-pack ⁽²⁾	T0-220AB	170	1.2	20
40	V40100PW	Plastic Power-pack ⁽²⁾	T0-3PW	100	0.77	20
40	V40100PGW	Plastic Power-pack ⁽²⁾	T0-3PW	100	0.85	20
40	V40170PW	Plastic Power-pack ⁽²⁾	T0-3PW	170	0.95	20
40	V40D100C	Plastic SMD	T0-263AC (SMPD)	100	0.75	20
40	V40D120C	Plastic SMD	T0-263AC (SMPD)	120	0.89	20
40	V40DM120C	Plastic SMD	T0-263AC (SMPD)	120	0.89	20
40	V40M150C	Plastic Power-pack ⁽²⁾	T0-220AB	150	1.43	20
50	V50100PW	Plastic Power-pack ⁽²⁾	T0-3PW	100	0.84	25
60	VT6045C	Plastic Power-pack ⁽²⁾	T0-220AB	45	0.64	30
	VFT6045C	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.64	30
	VBT6045C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	45	0.64	30
	VIT6045C	Plastic Power-pack ⁽²⁾	T0-262AA	45	0.64	30

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RECTIFIERS

Schottky Rectifiers

Rectifiers - Worldwide Leader in Power Rectifiers

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family ⁽³⁾	Type		(V)	(A)
60	VT6045CBP	Plastic Power-pack ⁽²⁾	T0-220AB	45	0.64	30
	VFT6045CBP	Isolated Power-pack ⁽²⁾	ITO-220AB	45	0.64	30
	VBT6045CBP	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	45	0.64	30
60	V60100C	Plastic Power-pack ⁽²⁾	T0-220AB	100	0.79	30
	VB60100C	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	100	0.79	30
60	V60120C	Plastic Power-pack ⁽²⁾	T0-220AB	120	0.95	30
	VB60120C	Plastic Power-pack ⁽²⁾	T0-263AB (D ² PAK)	120	0.95	30
60	V60170G	Plastic Power-pack ⁽²⁾	T0-220AB	170	1.02	30
60	V60100PW	Plastic Power-pack ⁽²⁾	T0-3PW	100	0.86	30
60	V60200PGW	Plastic Power-pack ⁽²⁾	T0-3PW	200	1.48	30
60	V60D45C	Plastic SMD	T0-263AC (SMPD)	45	0.64	30
60	V60D100C	Plastic SMD	T0-263AC (SMPD)	100	0.81	30
60	V60D120C	Plastic SMD	T0-263AC (SMPD)	120	0.96	30
60	V60M120C	Plastic Power-pack ⁽²⁾	T0-220AB	120	0.97	30
60	VT60L45PW	Plastic Power-pack ⁽²⁾	T0-3PW	45	0.57	30
60	VT60M45C	Plastic Power-pack ⁽²⁾	T0-220AB	45	0.68	30
60	VT60M120C	Plastic Power-pack ⁽²⁾	T0-220AB	120	0.97	30
80	V80100PW	Plastic Power-pack ⁽²⁾	T0-3PW	100	0.84	40
80	V80170PW	Plastic Power-pack ⁽²⁾	T0-3PW	170	0.91	40
80	V80H150PW	Plastic Power-pack ⁽²⁾	T0-3PW	150	0.91	40
80	VT80L45PW	Plastic Power-pack ⁽²⁾	T0-3PW	45	0.58	40

Note:

1. Bold text indicates new product

2. Dual center-tapped device (V_F limit at I_F is per diode)



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High-performance Schottky diodes are offered with forward current ratings of 1 A to 175 A and voltage ratings of 15 V to 150 V, a wide range that covers virtually all Schottky applications. A complete portfolio of through-hole and SMD packages is available. In addition to its well-established standard planar Schottky technology, Vishay offers devices built on a second-generation Gen2.x planar technology that supports maximum junction temperatures up to 125 °C for OR-ing applications and up to 175 °C for most other applications requiring low leakage.

Each of these technologies offers specific advantages depending on the customer's application, including superior efficiency, avalanche capability, and the ability to withstand voltage spikes. In addition, a new range of devices built using a halogen free molding compound is available.

Our AEC-Q101 qualified planar Schottky devices meet the highest standards of quality for automotive applications with electrical parameters tested according to PAT and SYL. Our automotive products use a dedicated die in the front end operation and a dedicated part number at the back end, with device selection based on PAT and SYL statistical criteria. Target applications include on board electronics, ABS systems, power steering, and more.

$I_{F(AV)}$ (A)	Device ⁽⁴⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F		T_J Max (°C)
		Family	Type		(V)	(A)	
3.5	VS-30WQ04FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	40	0.49	3	150
3.5	VS-30WQ06FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	60	0.53	3	150
3.5	VS-30WQ10FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	100	0.63	3	150
5.5	VS-50WQ04FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	40	0.44	5	150
5.5	VS-50WQ06FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	60	0.54	5	150
5.5	VS-50WQ10FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	100	0.63	5	150
6	VS-6CWQ04FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	40	0.62	6	150
6	VS-6CWQ06FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	60	0.65	3	150
6	VS-6CWQ10FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	100	0.74	6	150
10	VS-10WQ045FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	45	0.53	10	175
12	VS-12CWQ04FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	40	0.64	6	150
12	VS-12CWQ06FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	60	0.72	6	150
12	VS-12CWQ10FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	T0-252AA - D-Pak	100	0.78	6	150
20	VS-20CTQ045HN3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-220AB	35-40-45	0.68	10	175
100	VS-100BGQ015HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	15	0.42	100	125
100	VS-100BGQ030HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	30	0.51	100	150
100	VS-100BGQ045HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	45	0.68	100	150
100	VS-100BGQ100HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	100	0.77	100	175
175	VS-175BGQ030HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	30	0.49	175	150
175	VS-175BGQ045HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	45	0.64	175	150

Note:

1. Singled die device
2. Dual center-tapped device (V_F limit at I_F is per diode)
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen-free mould compound and RoHs compliant
6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
8. RoHs compliant



RECTIFIERS

Schottky Rectifiers

HPS GEN 3.x (Planar Technology)

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family	Type		(V)	(A)	
3	30BQ100GPBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	SMC	100	0.62	3	175
5	VS-50SQ100Gx	Plastic Axial ⁽¹⁾⁽³⁾⁽⁸⁾	DO-204AR	60-80-100	0.52	5	175
5	VS-50SQ100Gx-M3	Plastic Axial ⁽¹⁾⁽³⁾⁽⁶⁾	DO-204AR	60-80-100	0.52	5	175
8	VS-8TQ100GSxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D ² PAK	80-100	0.58	8	175
8	VS-8TQ100GPBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	T0-220AC	80-100	0.58	8	175
8	VS-8TQ100G-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	T0-220AC	80-100	0.58	8	175
16	VS-16CTQ100GSxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	D ² PAK	60-80-100	0.69	8	175
16	VS-16CTQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-220AB	60-80-100	0.69	8	175
16	VS-16CTQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-220AB	60-80-100	0.69	8	175
16	VS-16CTQ100G-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	T0-262	80-100	0.69	8	175
20	VS-MBRB20100CTGxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	D ² PAK	100	0.85	10	175
20	VS-MBR20100CTG-1P	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	T0-262	80-100	0.85	10	175
30	VS-30CTQ100GSxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	D ² PAK	80-100	0.82	15	175
30	VS-30CTQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-220AB	80-100	0.82	15	175
30	VS-30CTQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-220AB	80-100	0.82	15	175
30	VS-30CTQ100G-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	T0-262	80-100	0.82	15	175
30	VS-30CPQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-247	80-100	0.81	15	175
30	VS-30CPQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-247	80-100	0.81	15	175
40	VS-43CTQ100GSxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	D ² PAK	80-100	0.81	20	175
40	VS-43CTQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-220AB	100	0.81	20	175
40	VS-43CTQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-220AB	80-100	0.81	20	175
40	VS-43CTQ100G-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	T0-262	80-100	0.81	20	175
40	VS-40CPQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-247	80-100	0.75	20	175
40	VS-40CPQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-247	80-100	0.75	20	175
60	VS-63CTQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-220AB	100	0.83	30	175
60	VS-63CTQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-220AB	100	0.83	30	175
60	VS-63CPQ100GPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	T0-247	80-100	0.76	30	175
60	VS-63CPQ100G-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	T0-247	80-100	0.76	30	175

Note:

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Schottky Rectifiers

HPS GEN 2.x (Planar Technology)

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _j Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
1	VS-MBRA120PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	20	0.35	1	150
1	VS-10MQ040-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	40	0.49	1	150
1	VS-MBRA140PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	40	0.49	1	150
1	VS-10MQ060-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	60	0.57	1	150
1	VS-10BQ015PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	15	0.32	1	125
1	VS-10BQ015-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	15	0.32	1	125
1	VS-MBRS120PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	20	0.35	1	150
1	VS-10BQ030PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	30	0.30	1	150
1	VS-MBRS130LPBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	30	0.30	1	125
1	VS-MBRS130PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	30	0.42	1	125
1	VS-10BQ040PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	40	0.49	1	150
1	VS-10BQ040-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	40	0.49	1	150
1	VS-MBRS140PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	40	0.53	1	150
1	VS-10BQ060PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	60	0.57	1	150
1	VS-10BQ060-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	60	0.57	1	150
1	VS-10BQ100PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	100	0.62	1	175
1	VS-10BQ100-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	100	0.62	1	175
1	VS-MBRS1100PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	90-100	0.62	1	175
1.5	VS-10MQ060NPBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	60	0.63	1.5	150
2	VS-20BQ030PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AA (SMB)	30	0.37	2	150
2	VS-20MQ040-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	40	0.63	2	150
2	VS-20MQ060-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	60	0.68	2	150
2	VS-20MQ100-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	100	0.72	2	150
2.1	VS-10MQ040NPBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	40	0.56	1.5	150
2.1	VS-20MQ040PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	40	0.63	2	150
2.1	VS-20MQ060PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	60	0.68	2	150
2.1	VS-10MQ100NPBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	100	0.68	1.5	150
2.1	VS-10MQ100-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	100	0.63	1	150
2.1	VS-20MQ100PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	100	0.72	2	150
3	VS-15MQ040NPBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AC (SMA)	40	0.43	2	150
3	VS-30BQ015-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AB (SMC)	15	0.30	3	125
3	VS-30BQ015PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	15	0.30	3	125
3	VS-MBRS320PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	20	0.36	3	150
3	VS-30MQ040-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AC (SMA)	40	0.46	3	150
3	VS-30BQ040-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AB (SMC)	40	0.43	3	150

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HPS GEN 2.x (Planar Technology), continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
3	VS-30BQ040PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	40	0.43	3	150
3	VS-MBRS340PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	40	0.43	3	150
3	VS-30BQ060-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AB (SMC)	60	0.52	3	150
3	VS-30BQ060PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	60	0.52	3	150
3	VS-30BQ100-M3	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	D0-214AB (SMC)	100	0.62	3	175
3	VS-30BQ100PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	100	0.62	3	175
3	VS-MBRS360PBF	Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	D0-214AB (SMC)	50-60	0.61	3	150
3	VS-MBRD320xPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	20	0.49	3	150
3	VS-MBRD320x-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	20	0.49	3	150
3	VS-MBRD330xPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	30	0.49	3	150
3	VS-MBRD330x-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	30	0.49	3	150
3	VS-MBRD340xPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	40	0.49	3	150
3	VS-MBRD340x-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	40	0.49	3	150
3.5	VS-30WQ03FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	30	0.35	3	150
3.5	VS-30WQ04FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	40	0.49	3	150
3.5	VS-30WQ04FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	40	0.49	3	150
3.5	VS-30WQ06FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	60	0.53	3	150
3.5	VS-30WQ06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	60	0.53	3	150
3.5	VS-30WQ10FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	100	0.63	3	150
3.5	VS-30WQ10FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	100	0.63	3	150
3.5	VS-30WQ03FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	30	0.35	3	150
5.5	VS-50WQ03FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	30	0.35	5	150
5.5	VS-50WQ03FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	30	0.35	5	150
5.5	VS-50WQ04FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	40	0.44	5	150
5.5	VS-50WQ04FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	40	0.44	5	150
5.5	VS-50WQ06FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	60	0.54	5	150
5.5	VS-50WQ06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	60	0.54	5	150
5.5	VS-50WQ10FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	100	0.63	5	150
5.5	VS-50WQ10FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	100	0.63	5	150
6	VS-6CWQ03FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	30	0.46	6	150
6	VS-6CWQ03FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	30	0.46	6	150
6	VS-6CWQ04FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	40	0.62	6	150
6	VS-6CWQ04FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	40	0.62	6	150
6	VS-6CWQ06FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	60	0.65	3	150
6	VS-6CWQ06FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	60	0.65	3	150

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RECTIFIERS

Schottky Rectifiers

HPS GEN 2.x (Planar Technology), continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
6	VS-6CWQ10FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	100	0.74	6	150
6	VS-6CWQ10FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	100	0.74	6	150
6	VS-MBRD660CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	50-60	0.65	3	150
6	VS-MBRD660CTx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	50-60	0.65	3	150
6	VS-6TQ045SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.53	6	175
6	VS-6TQ045PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45	0.53	6	175
6	VS-6TQ045-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45	0.53	6	175
7.5	VS-MBRB745xPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.57	7.5	150
7.5	VS-MBR745PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45	0.57	7.5	150
7.5	VS-MBR745-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45	0.57	7.5	150
8	VS-8TQ100SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	80-100	0.58	8	175
8	VS-8TQ100PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	60-80-100	0.69	8	175
8	VS-8TQ100-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	60-80-100	0.69	8	175
10	VS-10WQ045FNxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	45	0.53	10	175
10	VS-10WQ045FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	45	0.53	10	175
10	VS-10CTQ150SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	150	0.86	5	175
10	VS-10TQ045SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.49	10	175
10	VS-MBRB1045xPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.57	10	150
10	VS-10CTQ150-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	150	0.86	5	175
10	VS-10CTQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	150	0.86	5	175
10	VS-10CTQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	150	0.86	5	175
10	VS-10TQ045PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45	0.49	10	175
10	VS-10TQ045-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45	0.49	10	175
10	VS-MBR1045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.57	10	150
10	VS-MBR1045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.57	10	150
12	VS-12CWQ03FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	30	0.49	6	150
12	VS-12CWQ03FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	30	0.49	6	150
12	VS-12CWQ04FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	40	0.64	6	150
12	VS-12CWQ04FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	40	0.64	6	150
12	VS-12CWQ06FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	60	0.72	6	150
12	VS-12CWQ06FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	60	0.72	6	150
12	VS-12CWQ10FNxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁸⁾	TO-252AA - D-Pak	100	0.78	6	150
12	VS-12CWQ10FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA - D-Pak	100	0.78	6	150
12	VS-12CTQ045SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.64	6	175
12	VS-12TQ045SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.50	15	150

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RECTIFIERS

Schottky Rectifiers

HPS GEN 2.x (Planar Technology), continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
12	VS-12CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.64	6	175
12	VS-12CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.64	6	175
12	VS-12TQ045PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45	0.50	12	150
12	VS-12TQ045-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45	0.50	12	150
15	VS-15TQ060SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	60	0.56	15	150
15	VS-15CTQ045SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.65	7.5	150
15	VS-MBRB1545CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.72	7.5	150
15	VS-15CTQ045-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	35-40-45	0.65	7.5	150
15	VS-MBR1545CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	35-40-45	0.72	7.5	150
15	VS-15TQ060PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	60	0.56	15	150
15	VS-15TQ060-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	60	0.56	15	150
15	VS-15CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.65	7.5	150
15	VS-15CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.65	7.5	150
15	VS-MBR1545CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.72	7.5	150
15	VS-MBR1545CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.72	7.5	150
16	VS-MBRB1645xPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.57	16	150
16	VS-16CTQ100SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	80-100	0.69	8	175
16	VS-MBRB1645-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	35-40-45	0.57	16	150
16	VS-16CTQ100-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	80-100	0.69	8	175
16	VS-MBR1645PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45	0.57	16	150
16	VS-MBR1645-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45	0.57	16	150
18	VS-18TQ045PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45-50	0.53	18	175
18	VS-18TQ045-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45-50	0.53	18	175
16	VS-16CTQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	60-80-100	0.69	8	175
16	VS-16CTQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	60-80-100	0.69	8	175
18	VS-18TQ045SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.53	18	175
19	VS-19TQ015SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	15	0.32	19	125
19	VS-19TQ015PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	15	0.32	19	125
19	VS-19TQ015-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	15	0.32	19	125
20	VS-20L15TSxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	15	0.33	20	125
20	VS-20CTQ150SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	150	0.77	10	175
20	VS-20CTQ045SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.68	10	175
20	VS-20TQ045SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.51	10	150
20	VS-MBRB2045CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.72	10	150
20	VS-MBRB20100CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	80-90-100	0.85	10	150

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HPS GEN 2.x (Planar Technology), continued

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		Family ⁽³⁾	Type		(V)	(A)	
20	VS-20CTQ045-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	45	0.68	10	175
20	VS-20CTQ150-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I²PAK)	150	0.77	10	175
20	VS-MBR2045CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	35-40-45	0.72	10	150
20	VS-MBR20100CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I²PAK)	80-90-100	0.85	10	150
20	VS-20L15TPBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	15	0.33	20	125
20	VS-20L15T-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	15	0.33	20	125
20	VS-20CTQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	150	0.77	10	175
20	VS-20CTQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	150	0.77	10	175
20	VS-20CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.68	10	175
20	VS-20CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.68	10	175
20	VS-20TQ045PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	35-40-45	0.51	10	150
20	VS-20TQ045-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	35-40-45	0.51	10	150
20	VS-MBR2045CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.72	10	150
20	VS-MBR2045CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.72	10	150
20	VS-MBR20100CTK-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	60-80-100	0.65	10	175
25	VS-25CTQ045SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	35-40-45	0.64	12.5	150
25	VS-MBRB2545CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D²PAK)	45	0.73	12.5	150
25	VS-MBR2545CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	35-40-45	0.73	12.5	150
25	VS-25CTQ045-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	35-40-45	0.64	12.5	150
25	VS-25CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.64	12.5	150
25	VS-25CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.64	12.5	150
25	VS-MBR2545CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	45	0.73	12.5	150
25	VS-MBR2545CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	45	0.73	12.5	150
30	VS-32CTQ030SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	30	0.53	15	150
30	VS-MBRB3030CTLxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D²PAK)	30	0.51	15	150
30	VS-30CTQ045SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	45	0.70	15	175
30	VS-MBRB3045CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D²PAK)	45	0.72	15	150
30	VS-30CTQ060SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	60	0.71	15	150
30	VS-30CTQ100SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	80-100	0.82	15	175
30	VS-30L30CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	30	0.50	15	150
30	VS-32CTQ030-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I²PAK)	30	0.53	15	150
30	VS-30CTQ045-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	45	0.70	15	175
30	VS-MBR3045CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	45	0.72	15	150
30	VS-30CTQ060-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	60	0.71	15	150
30	VS-30CTQ100-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	80-100	0.82	15	175

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		Family ⁽³⁾	Type		(V)	(A)	
30	VS-30L30CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	30	0.50	15	150
30	VS-30L30CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	30	0.50	15	150
30	VS-MBR3045CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	45	0.72	15	150
30	VS-MBR3045CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	45	0.72	15	150
30	VS-32CTQ030PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	25-30	0.53	15	150
30	VS-32CTQ030-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	25-30	0.53	15	150
30	VS-30CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	35-40-45	0.70	15	175
30	VS-30CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	35-40-45	0.70	15	175
30	VS-30CTQ060PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	50-60	0.71	15	150
30	VS-30CTQ060-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	50-60	0.71	15	150
30	VS-30CTQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	80-100	0.65	15	175
30	VS-30CTQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	80-100	0.65	15	175
30	VS-30CPQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	150	0.93	15	175
30	VS-30CPQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	150	0.93	15	175
30	VS-30CPQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	35-40-45	0.64	15	150
30	VS-30CPQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	35-40-45	0.64	15	150
30	VS-MBR3045WTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	35-40-45	0.72	30	150
30	VS-MBR3045WT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	35-40-45	0.72	30	150
30	VS-30CPQ060PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	50-60	0.70	15	150
30	VS-30CPQ060-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	50-60	0.70	15	150
30	VS-30CPQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	80-90-100	0.81	15	175
30	VS-30CPQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	80-90-100	0.81	15	175
40	VS-40L15CTSxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁷⁾	TO-263AB (D ² PAK)	15	0.50	20	125
40	VS-47CTQ020SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁷⁾	TO-263AB (D ² PAK)	20	0.42	20	150
40	VS-42CTQ030SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	30	0.51	20	150
40	VS-40CTQ045SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	45	0.67	20	150
40	VS-MBR4045CTxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	45	0.75	20	150
40	VS-48CTQ060SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	60	0.75	20	150
40	VS-40CTQ150SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	150	0.85	20	175
40	VS-43CTQ100SxPBF	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	80-100	0.81	20	175
40	VS-40L15CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	15	0.50	20	125
40	VS-47CTQ020-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	20	0.42	20	150
40	VS-42CTQ030-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	30	0.51	20	150
40	VS-40CTQ045-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	45	0.67	20	150
40	VS-MBR4045CT-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	45	0.75	20	150

Note:

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4. Bold text indicates new product
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6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
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RECTIFIERS

Schottky Rectifiers

HPS GEN 2.x (Planar Technology), continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
40	VS-48CTQ060-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	60	0.75	20	150
40	VS-40CTQ150-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	150	0.85	20	175
40	VS-43CTQ100-1PBF	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	80-100	0.81	20	175
40	VS-40L15CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	15	0.50	20	125
40	VS-40L15CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	15	0.5	20	125
40	VS-47CTQ020PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	20	0.42	20	150
40	VS-47CTQ020-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	20	0.42	20	150
40	VS-42CTQ030PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	30	0.51	20	150
40	VS-42CTQ030-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	30	0.51	20	150
40	VS-40CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	45	0.67	20	150
40	VS-40CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	45	0.67	20	150
40	VS-MBR4045CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AC	45	0.75	20	150
40	VS-MBR4045CT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AC	45	0.75	20	150
40	VS-48CTQ060PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	60	0.75	20	150
40	VS-48CTQ060-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	60	0.75	20	150
40	VS-43CTQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	100	0.81	20	175
40	VS-43CTQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	100	0.81	20	175
40	VS-40CTQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	150	0.85	20	175
40	VS-40CTQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	150	0.85	20	175
40	VS-40L15CWPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	15	0.50	40	125
40	VS-40L15CW-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	15	0.50	40	125
40	VS-MBR40L15CWPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	15	0.50	20	125
40	VS-MBR40L15CW-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	15	0.50	20	125
40	VS-40L40CWPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	40	0.70	20	150
40	VS-40L40CW-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	40	0.70	20	150
40	VS-40L45CWPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	45	0.70	20	150
40	VS-40L45CW-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	45	0.70	20	150
40	VS-MBR4045WTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	45	0.72	40	150
40	VS-MBR4045WT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	45	0.72	40	150
40	VS-MBR4060WTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	60	0.62	40	150
40	VS-MBR4060WT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	60	0.62	40	150
40	VS-40CPQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	35-40-45	0.56	20	150
40	VS-40CPQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	35-40-45	0.56	20	150
40	VS-40CPQ060PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	50-60	0.64	20	150
40	VS-40CPQ060-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	50-60	0.64	20	150

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RECTIFIERS

Schottky Rectifiers

HPS GEN 2.x (Planar Technology), continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
40	VS-40CPQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	80-100	0.75	20	175
40	VS-40CPQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	80-100	0.75	20	175
50	VS-52CPQ030PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	30	0.49	25	150
50	VS-52CPQ030-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	30	0.49	25	150
60	VS-62CTQ030PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AC	30	0.59	30	150
60	VS-62CTQ030-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AC	30	0.59	30	150
60	VS-63CTQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	100	0.83	30	175
60	VS-63CTQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	100	0.83	30	175
60	VS-60CTQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	150	0.87	30	175
60	VS-60CTQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	150	0.87	30	175
60	VS-60CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AC	35-40-45	0.75	30	150
60	VS-60CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AC	35-40-45	0.75	30	150
60	VS-61CTQ045PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AC	35-40-45	0.74	30	175
60	VS-61CTQ045-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AC	35-40-45	0.74	30	175
60	VS-MBR6045WTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	45	0.55	30	150
60	VS-MBR6045WT-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	45	0.55	30	150
60	VS-63CPQ100PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	100	0.76	30	175
60	VS-63CPQ100-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	100	0.76	30	175
60	VS-60CPQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	150	0.77	30	175
60	VS-60CPQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	150	0.77	30	175
65	VS-65PQ015PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	15	0.46	65	125
65	VS-65PQ015-N3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	15	0.46	65	125
70	VS.72CPQ030PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	30	0.58	35	150
70	VS.72CPQ030-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	30	0.58	35	150
80	VS-80CPQ020PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	20	0.46	40	150
80	VS-80CPQ020-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	20	0.46	40	150
80	VS-80CPQ150PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	150	0.85	40	175
80	VS-80CPQ150-N3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	150	0.85	40	175
80	VS-85CNQ015APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	15	0.42	40	125
80	VS-87CNQ020APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	20	0.39	40	150
80	VS-82CNQ030APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	30	0.47	40	150
80	VS-88CNQ060APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	60	0.67	40	150
80	VS-80CNQ045APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	40-45	0.61	40	150
80	VS-81CNQ045APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	40-45	0.66	40	175
80	VS-83CNQ100APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	80-100	0.82	40	175

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RECTIFIERS

Schottky Rectifiers

HPS GEN 2.x (Planar Technology), continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _J Max (°C)
		Family ⁽³⁾	Type		(V)	(A)	
80	VS-85CNQ015ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	15	0.42	40	125
80	VS-87CNQ020ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	20	0.39	40	150
80	VS-82CNQ030ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	30	0.47	40	150
80	VS-88CNQ060ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	60	0.67	40	150
80	VS-80CNQ045ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	35-40-45	0.61	40	150
80	VS-81CNQ045ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	35-40-45	0.66	40	175
80	VS-83CNQ100ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	80-100	0.82	40	175
80	VS-85CNQ015ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	15	0.42	40	125
80	VS-87CNQ020ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	20	0.39	40	150
80	VS-82CNQ030ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	30	0.47	40	150
80	VS-88CNQ060ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	60	0.67	40	150
80	VS-80CNQ045ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	35-40-45	0.61	40	150
80	VS-81CNQ045ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	35-40-45	0.66	40	175
80	VS-83CNQ100ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	80-100	0.82	40	175
100	VS-100BGQ015	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	15	0.42	100	125
100	VS-100BGQ030	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	30	0.51	100	150
100	VS-100BGQ045	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	45	0.68	100	150
100	VS-100BGQ100	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	100	0.77	100	175
110	VS-115CNQ015APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	15	0.43	55	125
110	VS-112CNQ030APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	30	0.51	55	150
110	VS-110CNQ045APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	45	0.69	55	150
110	VS-111CNQ045APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	45	0.69	55	175
110	VS-113CNQ100APBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8	100	0.79	33	175
110	VS-115CNQ015ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	15	0.43	55	125
110	VS-112CNQ030ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	30	0.51	55	150
110	VS-111CNQ045ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	45	0.69	55	175
110	VS-113CNQ100ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	100	0.79	55	175
110	VS-110CNQ045ASLPBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	D61-8-SL	40-45	0.69	55	150
110	VS-115CNQ015ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	15	0.43	55	125
110	VS-112CNQ030ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	30	0.51	55	150
110	VS-110CNQ045ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	45	0.69	55	150
110	VS-111CNQ045ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	45	0.69	55	175
110	VS-113CNQ100ASMPBF	Power Plastic SMD ⁽²⁾⁽⁸⁾	D61-8-SM	100	0.79	55	175
175	VS-175BGQ030	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	30	0.49	175	150
175	VS-175BGQ045	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	PowerTab™	45	0.64	175	150

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RECTIFIERS

Ultrafast Recovery Rectifiers

Ultrafast Recovery Rectifiers have very fast reverse recovery times (as low as 15 ns) and voltage levels as high as 1500 V. They are ideally suited for very high frequency switching power supplies, inverters, and freewheeling diodes. Both platinum-doped types with excellent high-temperature leakage current and gold-doped types for soft reverse recovery with excellent recovery temperature stability are offered.

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F		T_{rr} (ns)
		Family ⁽³⁾	Type		(V)	(A)	
0.6	UG06A thru UG06D	Plastic Axial ⁽²⁾	MPG06	50 - 200	0.95	0.6	15
1.0	ES1A thru ES1D	Plastic SMD ⁽²⁾	DO-214AC (SMA)	50 - 200	0.92	1.0	15
1.0	ES1PB, ES1PC & ES1PD	Plastic SMD⁽²⁾	DO-220AA (SMP)	100 - 200	0.865 / 0.92	0.6 / 1.0	15
1.0	ESH1B, ESH1C & ESH1D	Plastic SMD ⁽²⁾	DO-214AC (SMA)	100 - 200	0.87 / 0.90	0.7 / 1.0	25
1.0	ESH1PB, ESH1PC & ESH1PD	Plastic SMD⁽²⁾	DO-220AA (SMP)	100 - 200	0.86 / 0.90	0.7 / 1.0	25
1.0	MUR120	Plastic Axial ⁽²⁾	DO-204AC (DO-15)	200	0.88	1.0	25
1.0	MUR140 & MUR160	Plastic Axial ⁽²⁾	DO-204AC (DO-15)	400 - 600	1.25	1.0	50
1.0	MURS120	Plastic SMD ⁽²⁾	DO-214AA (SMB)	200	0.88	1.0	25
1.0	MURS140 & MURS160	Plastic SMD ⁽²⁾	DO-214AA (SMB)	400 - 600	1.25	1.0	50
1.0	UF4001 thru UF4007	Plastic Axial ⁽²⁾	DO-204AL (DO-41)	50 - 1000	1.0 / 1.7	1.0	50 / 75
1.0	UG1A thru UG1D	Plastic Axial ⁽²⁾	DO-204AL (DO-41)	50 - 200	0.95	1.0	15
1.0	US1A thru US1M	Plastic SMD ⁽²⁾	DO-214AC (SMA)	50 - 1000	1.0 / 1.7	1.0	50 / 75
1.2	ES07B	Plastic SMD	DO-219AB (SMF)	100	0.98	1.0	25
1.2	ES07D	Plastic SMD	DO-219AB (SMF)	200	0.98	1.0	25
1.5	BYG20D thru BYG20J	Plastic SMD ⁽²⁾	DO-214AC (SMA)	200 - 600	1.30	1.0	75
1.5	BYG23M	Plastic SMD ⁽²⁾	DO-214AC (SMA)	1000	1.70	1.0	75
2.0	BYG22A thru BYG22D	Plastic SMD ⁽²⁾	DO-214AC (SMA)	50 - 200	1.10	2.0	25
2.0	ES2A thru ES2D	Plastic SMD ⁽²⁾	DO-214AA (SMB)	50 - 200	0.90	2.0	20
2.0	ES2F & ES2G	Plastic SMD ⁽²⁾	DO-214AA (SMB)	300 - 400	1.10	2.0	35
2.0	ESH2B, ESH2C & ESH2D	Plastic SMD ⁽²⁾	DO-214AA (SMB)	100 - 200	0.93	2.0	25
2.0	ESH2PB, ESH2PC & ESH2PD	Plastic SMD⁽²⁾	DO-220AA (SMP)	100 - 200	0.98	2.0	25
2.0	MURS240 & MURS260	Plastic SMD⁽²⁾	DO-214AA (SMB)	400 - 600	1.45	2.0	50
2.0	SBYV27-50 thru SBYV27-200	Plastic Axial ⁽²⁾	DO-204AC (DO-15)	50 - 200	1.07	3.0	15
2.0	U2B, U2C & U2D	Plastic Axial⁽⁴⁾	DO-214AA (SMB)	100 - 200	0.90	2.0	20
2.0	UG2A thru UG2D	Plastic Axial ⁽²⁾	DO-204AC (DO-15)	50 - 200	0.95	2.0	15
2.0	UG2F & UG2G	Plastic Axial ⁽²⁾	DO-204AC (DO-15)	300 - 400	1.10	2.0	35
2.0	USB260	Plastic SMD⁽²⁾	DO-214AA (SMB)	600	1.60	2.0	30
3.0	31GF4	Plastic Axial ⁽²⁾	DO-201AD	400	1.25	3.0	30
3.0	31GF6	Plastic Axial ⁽²⁾	DO-201AD	600	1.60	3.0	30
3.0	ES3A thru ES3D	Plastic SMD ⁽²⁾	DO-214AB (SMC)	50 - 200	0.90	3.0	20
3.0	ES3F & ES3G	Plastic SMD ⁽²⁾	DO-214AB (SMC)	300 - 400	1.10	3.0	35
3.0	ESH3B, ESH3C & ESH3D	Plastic SMD ⁽²⁾	DO-214AB (SMC)	100 - 200	0.90	3.0	25
3.0	MURS320	Plastic SMD ⁽²⁾	DO-214AB (SMC)	200	0.88	3.0	25
3.0	MURS340 & MURS360	Plastic SMD ⁽²⁾	DO-214AB (SMC)	400 & 600	1.25 / 1.28	3.0 / 4.0	50
3.0	MURS340S & MURS360S	Plastic Axial⁽²⁾	DO-214AA (SMB)	400 & 600	1.45	3.0	50

Note:

1. Bold text indicates new product
2. Glass passivated die

3. Dual center-tapped device (V_F limit at I_F is per diode)

4. Oxide planar die



RECTIFIERS

Ultrafast Recovery Rectifiers

Ultrafast Recovery Rectifiers, continued

I _{F(AV)} (A)	Device ⁽¹⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _{rr} (ns)
		Family ⁽³⁾	Type		(V)	(A)	
3.0	U3B, U3C & U3D	Plastic SMD ⁽⁴⁾	DO-214AB (SMC)	100 - 200	0.90	3.0	20
3.0	UF5400 thru UF5408	Plastic Axial ⁽²⁾	DO-201AD	50 - 1000	1.0 / 1.7	3.0	50 / 75
3.5	SBYV28-50 thru SBYV28-200	Plastic Axial ⁽²⁾	DO-201AD	50 - 200	1.10	3.5	20
4.0	MUR420	Plastic Axial ⁽²⁾	DO-201AD	200	0.89	4.0	25
4.0	MUR440 & MUR460	Plastic Axial ⁽²⁾	DO-201AD	400 - 600	1.28	4.0	50
4.0	UG4A thru UG4D	Plastic Axial ⁽²⁾	DO-201AD	50 - 200	0.95	4.0	20
5.0	GUR5H60	Plastic Power-pack ⁽²⁾	TO-220AC	600	1.80	5.0	30
5.0	GURB5H60	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	600	1.80	5.0	30
5.0	GURF5H60	Isolated Power-pack ⁽²⁾	ITO-220AC	600	1.80	5.0	30
5.0	UG5HT & UG5JT	Plastic Power-pack ⁽²⁾	TO-220AC	500 - 600	1.75	5.0	25
5.0	UGB5HT & UGB5JT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	500 - 600	1.75	5.0	25
5.0	UGF5HT & UGF5JT	Isolated Power-pack ⁽²⁾	ITO-220AC	500 - 600	1.75	5.0	25
6.0	FEP6AT thru FEP6DT	Plastic Power-pack ⁽²⁾⁽³⁾	TO-220AB	50 - 200	0.98	3.0	35
6.0	FEPB6AT thru FEPB6DT	Power-pack SMD ⁽²⁾⁽³⁾	TO-263AB (D ² PAK)	50 - 200	0.98	3.0	35
6.0	FEPF6AT thru FEPF6DT	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	50 - 200	0.98	3.0	35
8.0	BYV29-300 & BYV29-400	Plastic Power-pack ⁽²⁾	TO-220AC	300 - 400	1.25	8.0	35
8.0	BYV29B-300 & BYV29B-400	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	300 - 400	1.25	8.0	35
8.0	BYV29F-300 & BYV29F-400	Isolated Power-pack ⁽²⁾	ITO-220AC	300 - 400	1.25	8.0	35
8.0	BYW29-50 thru BYW29-200	Plastic Power-pack ⁽²⁾	TO-220AC	50 - 200	1.30	20	25
8.0	BYWB29-50 thru BYWB29-200	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	50 - 200	1.30	20	25
8.0	BYWF29-50 thru BYWF29-200	Isolated Power-pack ⁽²⁾	ITO-220AC	50 - 200	1.30	20	25
8.0	FES8AT thru FES8JT	Plastic Power-pack ⁽²⁾	TO-220AC	50 - 600	0.95 / 1.3 / 1.5	8.0	35 / 50
8.0	FESB8AT thru FESB8JT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	50 - 600	0.95 / 1.3 / 1.5	8.0	35 / 50
8.0	FESF8AT thru FESF8JT	Isolated Power-pack ⁽²⁾	ITO-220AC	50 - 600	0.95 / 1.3 / 1.5	8.0	35 / 50
8.0	U8BT thru U8DT	Plastic Power-pack ⁽⁴⁾	TO-220AC	100 - 200	1.02	8.0	20
8.0	UF8BT thru UF8DT	Isolated Power-pack ⁽⁴⁾	ITO-220AC	100 - 200	1.02	8.0	20
8.0	UB8BT thru UB8DT	Power-pack SMD ⁽⁴⁾	TO-263AB (D ² PAK)	100 - 200	1.02	8.0	20
8.0	GI1401 thru GI1404	Plastic Power-pack ⁽²⁾	TO-220AC	50 - 200	0.98	8.0	35
8.0	GIB1401 thru GIB1404	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	50 - 200	0.98	8.0	35
8.0	UG8AT thru UG8DT	Plastic Power-pack ⁽²⁾	TO-220AC	50 - 200	1.00	8.0	20
8.0	UGB8AT thru UGB8DT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	50 - 200	1.00	8.0	20
8.0	UGF8AT thru UGF8DT	Isolated Power-pack ⁽²⁾	ITO-220AC	50 - 200	1.00	8.0	20
8.0	UG8FT & UG8GT	Plastic Power-pack ⁽²⁾	TO-220AC	300 - 400	1.25	8.0	35
8.0	UGB8FT & UGB8GT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	300 - 400	1.25	8.0	35
8.0	UGF8FT & UGF8GT	Isolated Power-pack ⁽²⁾	ITO-220AC	300 - 400	1.25	8.0	35
8.0	UG8HT & UG8JT	Plastic Power-pack ⁽²⁾	TO-220AC	500 - 600	1.75	8.0	25
8.0	UGB8HT & UGB8JT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	500 - 600	1.75	8.0	25
8.0	UGF8HT & UGF8JT	Isolated Power-pack ⁽²⁾	ITO-220AC	500 - 600	1.75	8.0	25

Note:

1. Bold text indicates new product
2. Glass passivated die

3. Dual center-tapped device (V_F limit at I_F is per diode)

4. Oxide planar die



RECTIFIERS

Ultrafast Recovery Rectifiers

Ultrafast Recovery Rectifiers, continued

I _{F(AV)} (A)	Device ⁽¹⁾	Package		V _(BR) Range (V)	Max V _F at I _F		T _{rr} (ns)
		Family ⁽³⁾	Type		(V)	(A)	
8.0	UG8HCT & UG8JCT	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	500 - 600	1.75	4.0	25
8.0	UGB8HCT & UGB8JCT	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	500 - 600	1.75	4.0	25
8.0	UGF8HCT & UGF8JCT	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	500 - 600	1.75	4.0	25
10	BYQ28E-100 thru BYQ28E-200	Power-pack SMD ⁽²⁾⁽³⁾	T0-220AB	100 - 200	1.10	5.0	20
10	BYQ28EB-100 thru BYQ28EB-200	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	100 - 200	1.10	5.0	20
10	BYQ28EF-100 thru BYQ28EF-200	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	100 - 200	1.10	5.0	20
10	BYT28-300 & BYT28-400	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	300 - 400	1.30	5.0	35
10	BYT28B-300 & BYT28B-400	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	300 - 400	1.30	5.0	35
10	BYT28F-300 & BYT28F-400	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	300 - 400	1.30	5.0	35
10	UG10BCT thru UG10DCT	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	100 - 200	1.10	5.0	20
10	UGB10BCT thru UGB10DCT	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	100 - 200	1.10	5.0	20
10	UGF10BCT thru UGF10DCT	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	100 - 200	1.10	5.0	20
10	UG10FCT & UG10GCT	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	300 - 400	1.30	5.0	35
10	UGB10FCT & UGB10GCT	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	300 - 400	1.30	5.0	35
10	UGF10FCT & UGF10GCT	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	300 - 400	1.30	5.0	35
10	U10BCT thru U10DCT	Plastic Power-pack⁽³⁾⁽⁴⁾	T0-220AB	100 - 200	1.10	5.0	20
10	UB10BCT thru UB10DCT	Power-pack SMD⁽³⁾⁽⁴⁾	T0-263AB (D²PAK)	100 - 200	1.10	5.0	20
10	UF10BCT thru UF10DCT	Isolated Power-pack⁽³⁾⁽⁴⁾	ITO-220AB	100 - 200	1.10	5.0	20
12	UG12HT & UG12JT	Plastic Power-pack ⁽²⁾	T0-220AC	500 - 600	1.75	12	30
12	UGB12HT & UGB12JT	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	500 - 600	1.75	12	30
12	UGF12HT & UGF12JT	Isolated Power-pack ⁽²⁾	ITO-220AC	500 - 600	1.75	12	30
15	UG15HT & UG15JT	Plastic Power-pack ⁽²⁾	T0-220AC	500 - 600	1.75	15	35
15	UGB15HT & UGB15JT	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	500 - 600	1.75	15	35
15	UGF15HT & UGF15JT	Isolated Power-pack ⁽²⁾	ITO-220AC	500 - 600	1.75	15	35
16	FEP16AT thru FEP16JT	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	50 - 600	0.95 / 1.30 / 1.50	8	35 / 50
16	FEPB16AT thru FEPB16JT	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	50 - 600	0.95 / 1.30 / 1.50	8	35 / 50
16	FEPF16AT thru FEPF16JT	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	50 - 600	0.95 / 1.30 / 1.50	8	35 / 50
16	FES16AT thru FES16JT	Plastic Power-pack ⁽²⁾	T0-220AC	50 - 600	0.975 / 1.30 / 1.50	16	35 / 50
16	FESB16AT thru FESB16JT	Power-pack SMD ⁽²⁾	T0-263AB (D ² PAK)	50 - 600	0.975 / 1.30 / 1.50	16	35 / 50
16	FESF16AT thru FESF16JT	Isolated Power-pack ⁽²⁾	ITO-220AC	50 - 600	0.975 / 1.30 / 1.50	16	35 / 50
16	G12401 thru G12404	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	50 - 200	0.98	8.0	35
16	G1B2401 thru G1B2404	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	50 - 200	0.98	8.0	35

Note:

1. Bold text indicates new product
2. Glass passivated die

3. Dual center-tapped device (V_F limit at I_F is per diode)
4. Oxide planar die



RECTIFIERS

Ultrafast Recovery Rectifiers

Ultrafast Recovery Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F		T_{rr} (ns)
		Family ⁽³⁾	Type		(V)	(A)	
16	U16BCT thru U16DCT	Plastic Power-pack ⁽³⁾⁽⁴⁾	T0-220AB	100 - 200	1.10	8.0	35
16	UB16BCT thru UB16DCT	Power-pack SMD ⁽³⁾⁽⁴⁾	T0-263AB (D ² PAK)	100 - 200	1.10	8.0	35
18	BYV32-50 thru BYV32-200	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	50 - 200	1.15	20	25
18	BYVB32-50 thru BYVB32-200	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	50 - 200	1.15	20	25
18	BYVF32-50 thru BYVF32-200	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	50 - 200	1.15	20	25
18	UG18ACT thru UG18DCT	Plastic Power-pack ⁽²⁾⁽³⁾	T0-220AB	50 - 200	1.10	9.0	20
18	UGB18ACT thru UGB18DCT	Power-pack SMD ⁽²⁾⁽³⁾	T0-263AB (D ² PAK)	50 - 200	1.10	9.0	20
18	UGF18ACT thru UGF18DCT	Isolated Power-pack ⁽²⁾⁽³⁾	ITO-220AB	50 - 200	1.10	9.0	20
20	U20BCT thru U20DCT	Plastic Power-pack ⁽³⁾⁽⁴⁾	T0-220AB	100 - 200	1.00	10	35
20	UB20BCT thru UB20DCT	Power-pack SMD ⁽³⁾⁽⁴⁾	T0-263AB (D ² PAK)	100 - 200	1.00	10	35
30	FEP30AP thru FEP30JP	Plastic Power-pack ⁽²⁾⁽³⁾	T0-247AD	50 - 600	0.95 / 1.3 / 1.5	15	35 / 50
30	U30BCT thru U30DCT	Plastic Power-pack ⁽³⁾⁽⁴⁾	T0-220AB	100 - 200	1.05	15	25
30	UB30BCT thru UB30DCT	Power-pack SMD ⁽³⁾⁽⁴⁾	T0-263AB (D ² PAK)	100 - 200	1.05	15	25
30	UG30APT thru UG30DPT	Plastic Power-pack ⁽²⁾⁽³⁾	T0-247AD	50 - 200	1.00	15	25

Note:

1. Bold text indicates new product
2. Glass passivated die

3. Dual center-tapped device (V_F limit at I_F is per diode)
4. Oxide planar die

FRED Pt® (Fast Recovery Epitaxial Diodes) products are based on a Pt doping technology that allows a maximum junction temperature up to 175 °C. A highly flexible V_F / Q_{rr} ratio and maximum current ratings of 1 A to 175 A allow FRED Pt products to be used in all major applications. Devices are offered in plastic packages or as bare die. In addition, a new range of devices built with a halogen-free molding compound components is offered. Our AEC-Q101 qualified FRED Pt devices meet the highest standards of quality for automotive applications with electrical parameters tested according to PAT and SYL. Our automotive products use a dedicated die in the front end operation and a dedicated part number at the back end, with device selection based on PAT and SYL statistical criteria. Target applications include battery charging systems, EH/HEV vehicles, HID lighting, and more.

FRED Pt® AEC-Q101 Automotive

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _r at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di _F /dt, V _R)	(nC)
1	VS-1EFH01WHM3	Plastic SMD	DO-219AB (SMF)	100	0.80	1	16	1A, 200A/us, 160V	13
1	VS-1EFH02WHM3	Plastic SMD	DO-219AB (SMF)	200	0.80	1	16	1A, 200A/us, 160V	13
2	VS-2EJH02HM3	Plastic SMD	DO-221AC (SlimSMA)	200	0.77	2	17	2 A, 200 A/μs, 160 V	17
2	VS-2EJH01HM3	Plastic SMD	DO-221AC (SlimSMA)	100	0.77	2	17	2 A, 200 A/μs, 160 V	17
2	VS-2EGH02HM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AA (SMB)	200	0.90	2	21	2 A, 200 A/μs, 100 V	28
3	VS-3EJH02HM3	Plastic SMD	DO-221AC (SlimSMA)	200	0.78	3	18	3 A, 200 A/μs, 160 V	23
3	VS-3EJH01HM3	Plastic SMD	DO-221AC (SlimSMA)	100	0.78	3	18	3 A, 200 A/μs, 160 V	23
4	VS-4ESH01HM3	Plastic SMD	TO-277A (SMPC)	100	0.93	4	20	4A, 200A/us, 160V	22
4	VS-4ESH02HM3	Plastic SMD	TO-277A (SMPC)	200	0.93	4	20	4A, 200A/us, 160V	20
4	VS-4CSH01HM3	Plastic SMD	TO-277A (SMPC)	100	0.95	2	16	2A, 200A/us, 160V	16
4	VS-4CSH02HM3	Plastic SMD	TO-277A (SMPC)	200	0.95	2	16	2A, 200A/us, 160V	16
4	VS-4EWH02FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	0.95	4	20	3 A, 200 A/μs, 390 V	20 at R.T.
5	VS-5EWH06FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.85	5	21	5 A, 200 A/μs, 390 V	33 at R.T.
6	VS-6ESH01HM3	Plastic SMD	TO-277A (SMPC)	100	0.94	6	22	6A, 200A/us, 160V	27
6	VS-6ESH02HM3	Plastic SMD	TO-277A (SMPC)	200	0.94	6	22	6A, 200A/us, 160V	27
6	VS-6CSH01HM3	Plastic SMD	TO-277A (SMPC)	100	0.94	3	20	3A, 200A/us, 160V	23
6	VS-6CSH02HM3	Plastic SMD	TO-277A (SMPC)	200	0.94	3	20	3A, 200A/us, 160V	23
6	VS-6CWH02FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	1.00	3	19	3 A, 200 A/μs, 160 V	60 at R.T.
6	VS-MURD62OCTHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	1.2	6	19	3 A, 200 A/μs, 160 V	60
6	VS-6EWH06FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.10	6	21	6 A, 200 A/μs, 390 V	33 at R.T.
6	VS-6EWX06FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	3.10	6	16	6 A, 200 A/μs, 390 V	19 at R.T.
6	VS-6ESU06HM3	Plastic SMD	TO-277A (SMPC)	600	1.30	6	58	6A, 500A/us, 400V	290
6	VS-6ESH06HM3	Plastic SMD	TO-277A (SMPC)	600	1.80	6	40	6A, 500A/us, 400V	140
8	VS-8EWH06FNHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.40	8	25	8 A, 200 A/μs, 390 V	25 at R.T.
8	VS-8CWH02FNHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	0.95	4	20	4 A, 200 A/μs, 160 V	20 at R.T.
8	VS-8CSH01HM3	Plastic SMD	TO-277A (SMPC)	100	0.95	4	18	4A, 200A/us, 160V	18
8	VS-8CSH02HM3	Plastic SMD	TO-277A (SMPC)	200	0.95	4	18	4A, 200A/us, 160V	18
10	VS-10CSH01HM3	Plastic SMD	TO-277A (SMPC)	100	0.98	5	18	5A, 200A/us, 160V	18
10	VS-10CSH02HM3	Plastic SMD	TO-277A (SMPC)	200	0.98	5	18	5A, 200A/us, 160V	18

Note:

1. Single die device
2. Dual center-tapped device (V_F limit at I_F is per diode)
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen-free mould compound and RoHs compliant
6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
- A. Automotive Grade Device available on request

RECTIFIERS

Ultrafast Recovery Rectifiers

FRED Pt® AEC-Q101 Automotive, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di/dt, V _R)	(nC)
15	VS-ETH1506SHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.25	15	29	15 A, 200 A/μs, 390 V	280
15	VS-ETH1506S-1HM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.25	15	29	15 A, 200 A/μs, 390 V	280
16	VS-16CTU04HN3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
20	VS-MURB2020CTHM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	1.15	16	21	10 A, 200 A/μs, 160 V	25 at R.T.
20	VS-MURB2020CT-1HM3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	1.15	16	21	10 A, 200 A/μs, 160 V	25 at R.T.
30	VS-EPU3006HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-APU3006HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-30EPH06HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-ETU3006SHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-ETU3006S-1HM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-ETH3006SHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.6	30	26	30 A, 200 A/μs, 200 V	280
30	VS-ETH3006S-1HM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.6	30	26	30 A, 200 A/μs, 200 V	280
60	VS-60APU06HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (Mod)	600	1.68	60	81	60 A, 200 A/μs, 200 V	1394
60	VS-60EPU06HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (Mod)	600	1.68	60	81	60 A, 200 A/μs, 200 V	1394
80	VS-80EBU02HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	POWERTAB®	200	1.13	80	32	80 A, 200 A/μs, 160 V	240
80	VS-80EBU04HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	POWERTAB®	400	1.3	80	87	80 A, 200 A/μs, 200 V	1300
80	VS-EBU8006HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	POWERTAB®	600	1.53	80	98	50 A, 200 A/μs, 390 V	1650
150	VS-150EBU02HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	POWERTAB®	200	1.13	150	34	150 A, 200 A/μs, 160 V	300
150	VS-150EBU04HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	POWERTAB®	400	1.3	150	98	150 A, 200 A/μs, 390 V	1740
150	VS-EBU15006HF4	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	POWERTAB®	600	1.3	150	105	150 A, 200 A/μs, 390 V	2350

FRED Pt® standard product portfolio

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di/dt, V _R)	(nC)
1	VS-1EFH01W-M3	Plastic SMD	DO-219AB (SMF)	100	0.80	1	16	1A, 200A/μs, 160V	13
1	VS-1EFH02W-M3	Plastic SMD	DO-219AB (SMF)	200	0.80	1	16	1A, 200A/μs, 160V	13
2	VS-2EJH02-M3	Plastic SMD	DO-221AC (SlimSMA)	200	0.77	2	17	2 A, 200 A/μs, 160 V	17
2	VS-2EJH01-M3	Plastic SMD	DO-221AC (SlimSMA)	100	0.77	2	17	2 A, 200 A/μs, 160 V	17
3	VS-3EJH02-M3	Plastic SMD	DO-221AC (SlimSMA)	200	0.78	3	18	3 A, 200 A/μs, 160 V	23
3	VS-3EJH01-M3	Plastic SMD	DO-221AC (SlimSMA)	100	0.78	3	18	3 A, 200 A/μs, 160 V	23
3	VS-3EMH06-M3/5AT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AC (SMA)	600	1.70	3	35	3 A, 200 A/μs, 390 V	98
3	VS-3EMU06-M3/5AT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AC (SMA)	600	1.35	3	41	3 A, 200 A/μs, 390 V	193
3	VS-3EGH06-M3/5BT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AA (SMB)	600	1.70	3	35	3 A, 200 A/μs, 390 V	98
3	VS-3EGU06-M3/5BT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AA (SMB)	600	1.35	3	41	3 A, 200 A/μs, 390 V	193
4	VS-4ESH01-M3	Plastic SMD	TO-277A (SMPC)	100	0.93	4	20	4A, 200A/μs, 160V	22

Note:

- Single die device
- Dual center-tapped device (V_F limit at I_F is per diode)
- x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

- Bold text indicates new product
- Halogen-free mould compound and RoHs compliant
- Halogen-free mould compound and RoHs compliant and totally lead-free
- RoHs compliant and totally lead-free
- Automotive Grade Device available on request

RECTIFIERS

Ultrafast Recovery Rectifiers

FRED Pt® standard product portfolio, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di/dt, V _R)	(nC)
4	VS-4ESH02-M3	Plastic SMD	TO-277A (SMPC)	200	0.93	4	20	4A, 200A/μs, 160V	20
4	VS-4CSH01-M3	Plastic SMD	TO-277A (SMPC)	100	0.95	2	16	2A, 200A/μs, 160V	16
4	VS-4CSH02-M3	Plastic SMD	TO-277A (SMPC)	200	0.95	2	16	2A, 200A/μs, 160V	16
4	VS-4EGH06-M3/5BT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AB (SMC)	600	1.85	4	30	4 A, 200 A/μs, 390 V	103
4	VS-4EGU06-M3/5BT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AB (SMC)	600	1.30	4	45	4 A, 200 A/μs, 390 V	280
4	VS-4ECH06-M3/9AT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AA (SMB)	600	1.95	4	30	4 A, 200 A/μs, 390 V	104
4	VS-4ECU06-M3/9AT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AA (SMB)	600	1.30	4	45	4 A, 200 A/μs, 390 V	300
5	VS-5ECH06-M3/9AT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AB (SMC)	600	1.95	5	30	5 A, 200 A/μs, 390 V	111
5	VS-5ECU06-M3/9AT	Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	DO-214AB (SMC)	600	1.35	5	45	5 A, 200 A/μs, 390 V	347
4	VS-4EWH02FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	0.95	4	20	3 A, 200 A/μs, 390 V	20 at R.T.
5	VS-5EWH06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.85	5	21	5 A, 200 A/μs, 390 V	33 at R.T.
5	VS-5EWL06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.25	5	154	5 A, 200 A/μs, 390 V	826 at R.T.
5	VS-5EWX06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.90	5	16	5 A, 200 A/μs, 390 V	19 at R.T.
6	VS-6ESH01-M3	Plastic SMD	TO-277A (SMPC)	100	0.94	6	22	6A, 200A/μs, 160V	27
6	VS-6ESH02-M3	Plastic SMD	TO-277A (SMPC)	200	0.94	6	22	6A, 200A/μs, 160V	27
6	VS-6CSH01-M3	Plastic SMD	TO-277A (SMPC)	100	0.94	3	20	3A, 200A/μs, 160V	23
6	VS-6CSH02-M3	Plastic SMD	TO-277A (SMPC)	200	0.94	3	20	3A, 200A/μs, 160V	23
6	VS-6CWH02FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	1.00	3	19	3 A, 200 A/μs, 160 V	60 at R.T.
6	VS-MURD620CTx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	1.2	6	19	3 A, 200 A/μs, 160 V	60
6	VS-6EWH06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.10	6	21	6 A, 200 A/μs, 390 V	33 at R.T.
6	VS-6EWL06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.35	6	173	6 A, 200 A/μs, 390 V	988 at R.T.
6	VS-6EWX06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	3.10	6	16	6 A, 200 A/μs, 390 V	19 at R.T.
6	VS-6ESU06-M3	Plastic SMD	TO-277A (SMPC)	600	1.30	6	58	6A, 500A/μs, 400V	290
6	VS-6ESH06-M3	Plastic SMD	TO-277A (SMPC)	600	1.80	6	40	6A, 500A/μs, 400V	140
8	VS-8S2TH06I-M	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	ITO-220AC	600	3.1	8	11	8 A, 200 A/μs, 390 V	35
8	VS-MUR820PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
8	VS-MUR820-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
8	VS-8ETH03PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	300	1.25	8	27	8 A, 200 A/μs, 200 V	106
8	VS-8ETH03-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	300	1.25	8	27	8 A, 200 A/μs, 200 V	106
8	VS-8ETU04PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
8	VS-8ETU04-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
8	VS-8ETH06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	2.4	8	25	8 A, 200 A/μs, 400 V	120
8	VS-ETH0806-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	2.65	8	21	8 A, 200 A/μs, 400 V	110
8	VS-8ETH06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	2.4	8	25	8 A, 200 A/μs, 400 V	120
8	VS-8ETL06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200

Note:

1. Single die device
2. Dual center-tapped device (V_F limit at I_F is per diode)
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen-free mould compound and RoHs compliant
6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
- A. Automotive Grade Device available on request



RECTIFIERS

Ultrafast Recovery Rectifiers

FRED Pt® standard product portfolio, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di _F /dt, V _R)	(nC)
8	VS-ETL0806-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200
8	VS-8ETL06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200
8	VS-8ETX06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	3	8	17	8 A, 200 A/μs, 400 V	88
8	VS-ETX0806-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	3.40	8	17	8 A, 200 A/μs, 400 V	72
8	VS-8ETX06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	3	8	17	8 A, 200 A/μs, 400 V	88
8	VS-ETU0805-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.25	8	25	8 A, 200 A/μs, 400 V	450
8	VS-ETH0805FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	1.25	8	50	8 A, 200 A/μs, 400 V	450
8	VS-ETH0806FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	2.4	8	50	8 A, 200 A/μs, 400 V	120
8	VS-8ETH06FPBF	Isolated Power Plastic ⁽¹⁾⁽⁷⁾	TO-220FPAC	600	2.4	8	25	8 A, 200 A/μs, 400 V	120
8	VS-8ETH06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAC	600	2.4	8	25	8 A, 200 A/μs, 400 V	120
8	VS-8ETL06FPBF	Isolated Power Plastic ⁽¹⁾⁽⁷⁾	TO-220FPAC	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200
8	VS-ETL0806FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	1.07	8	180	8 A, 200 A/μs, 400 V	2400
8	VS-8ETL06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAC	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200
8	VS-8ETX06FPBF	Isolated Power Plastic ⁽¹⁾⁽⁷⁾	TO-220FPAC	600	3	8	17	8 A, 200 A/μs, 400 V	88
8	VS-ETX0806FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	3.40	8	17	8 A, 200 A/μs, 400 V	72
8	VS-8ETX06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAC	600	3	8	17	8 A, 200 A/μs, 400 V	88
8	VS-8EWH02FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	0.97	8	24	8 A, 200 A/μs, 160 V	27 at R.T.
8	VS-8CWH02FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	0.95	4	20	4 A, 200 A/μs, 160 V	20 at R.T.
8	VS-8EWH06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.40	8	25	8 A, 200 A/μs, 390 V	25 at R.T.
8	VS-8EWL06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.05	8	170	8 A, 200 A/μs, 390 V	1300 at R.T.
8	VS-8EWH06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	3.40	8	17	8 A, 200 A/μs, 390 V	20 at R.T.
8	VS-MURB820-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
8	VS-8ETH03-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	300	1.25	8	27	8 A, 200 A/μs, 200 V	106
8	VS-8ETU04-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
8	VS-8ETH06-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	2.4	8	25	8 A, 200 A/μs, 400 V	120
8	VS-8ETL06-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200
8	VS-8ETX06-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	3	8	17	8 A, 200 A/μs, 400 V	88
8	VS-MURB820xPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
8	VS-8ETH03SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	300	1.25	8	27	8 A, 200 A/μs, 200 V	106
8	VS-8ETU04SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
8	VS-8ETH06SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.4	8	25	8 A, 200 A/μs, 400 V	120
8	VS-8ETL06SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.05	8	170	8 A, 200 A/μs, 400 V	2200
8	VS-8ETX06SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	3	8	17	8 A, 200 A/μs, 400 V	88
8	VS-8CSH01-M3	Plastic SMD	TO-277A (SMPC)	100	0.95	4	18	4A, 200A/μs, 160V	18
8	VS-8CSH02-M3	Plastic SMD	TO-277A (SMPC)	200	0.95	4	18	4A, 200A/μs, 160V	18

Note:

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6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
- A. Automotive Grade Device available on request

RECTIFIERS

Ultrafast Recovery Rectifiers

FRED Pt® standard product portfolio, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di/dt, V _R)	(nC)
10	VS-10CSH01-M3	Plastic SMD	TO-277A (SMPC)	100	0.98	5	18	5A, 200A/us, 160V	18
10	VS-10CSH02-M3	Plastic SMD	TO-277A (SMPC)	200	0.98	5	18	5A, 200A/us, 160V	18
10	VS-MUR1020CTPBF	Power Plastic Through-Hole ⁽²⁾	TO-220AB	200	1.25	10	24	5 A, 200 A/μs, 160 V	76
10	VS-MUR1020CT-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	200	1.25	10	24	5 A, 200 A/μs, 160 V	76
10	VS-10CWH02FNx-M3	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	200	0.98	5	21	5 A, 200 A/μs, 160 V	20 at R.T.
10	VS-MURB1020CT-1PBF^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	200	1.25	10	24	5 A, 200 A/μs, 160 V	76
10	VS-MURB1020CTxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	1.25	10	24	5 A, 200 A/μs, 160 V	76
12	VS-12EWH06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.50	12	26	12 A, 200 A/μs, 390 V	48 at R.T.
15	VS-MUR1520PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	200	1.05	15	22	15 A, 200 A/μs, 160 V	90
15	VS-MUR1520-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	200	1.05	15	22	15 A, 200 A/μs, 160 V	90
15	VS-15ETH03PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	300	1.25	15	32	15 A, 200 A/μs, 200 V	137
15	VS-15ETH03-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	300	1.25	15	32	15 A, 200 A/μs, 200 V	137
15	VS-15ETH06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-ETH1506-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	2.45	15	29	15 A, 200 A/μs, 390 V	240
15	VS-15ETH06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-ETU1506-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	1.9	15	40	15 A, 200 A/μs, 390 V	730
15	VS-15ETL06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.05	15	220	15 A, 200 A/μs, 390 V	4300
15	VS-ETL1506-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	1.07	15	210	15 A, 200 A/μs, 390 V	4000
15	VS-15ETL06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.05	15	220	15 A, 200 A/μs, 390 V	4300
15	VS-15ETX06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	3.2	15	22	15 A, 200 A/μs, 390 V	150
15	VS-ETX1506-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	3.40	15	20	15 A, 200 A/μs, 390 V	135
15	VS-15ETX06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	3.2	15	22	15 A, 200 A/μs, 390 V	150
15	VS-15ETH06FPBF	Isolated Power Plastic ⁽¹⁾⁽⁷⁾	TO-220FPAC	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-ETH1506FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-15ETH06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAC	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-ETU1506FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	1.9	15	40	15 A, 200 A/μs, 390 V	730
15	VS-15ETL06FPBF	Isolated Power Plastic ⁽¹⁾⁽⁷⁾	TO-220FPAC	600	1.05	15	220	15 A, 200 A/μs, 390 V	4300
15	VS-ETL1506FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	1.07	15	210	15 A, 200 A/μs, 390 V	4000
15	VS-15ETL06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAC	600	1.05	15	220	15 A, 200 A/μs, 390 V	4300
15	VS-15ETX06FPBF	Isolated Power Plastic ⁽¹⁾⁽⁷⁾	TO-220FPAC	600	3.2	15	22	15 A, 200 A/μs, 390 V	150
15	VS-ETX1506FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAC	600	3.40	15	20	15 A, 200 A/μs, 390 V	135
15	VS-15ETX06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAC	600	3.2	15	22	15 A, 200 A/μs, 390 V	150
15	VS-15AWL06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.05	15	250	15 A, 200 A/μs, 390 V	4000
15	VS-15EWH06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	2.10	15	31	15 A, 200 A/μs, 390 V	60 at R.T.
15	VS-15EWL06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	1.05	15	250	15 A, 200 A/μs, 390 V	4000

Note:

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- Dual center-tapped device (V_F limit at I_F is per diode)
- x designates tube or tape&reel version on SMD products
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- Bold text indicates new product
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- Halogen-free mould compound and RoHs compliant and totally lead-free
- RoHs compliant and totally lead-free
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RECTIFIERS

Ultrafast Recovery Rectifiers

FRED Pt® standard product portfolio, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C	
		Family	Type		(V)	(A)		setup (I _F , di/dt, V _R)	(nC)
15	VS-15EWX06FNx-M3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252AA (DPAK)	600	3.20	15	22	15 A, 200 A/μs, 390 V	29 at R.T.
15	VS-MURB1520-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	200	1.05	15	22	15 A, 200 A/μs, 160 V	90
15	VS-15ETH03-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	300	1.25	15	32	15 A, 200 A/μs, 200 V	137
15	VS-15ETH06-1PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-ETH1506-1-M3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	2.25	15	29	15 A, 200 A/μs, 390 V	280
15	VS-15ETL06-1PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	1.05	15	220	15 A, 200 A/μs, 390 V	4300
15	VS-ETL1506-1-M3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	1.07	15	210	15 A, 200 A/μs, 390 V	4000
15	VS-ETU1506-1-M3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	1.9	15	40	15A, 200 A/μs, 390 V	730
15	VS-15ETX06-1PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	3.2	15	22	15 A, 200 A/μs, 390 V	150
15	VS-ETX1506-1-M3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	3.4	15	20	15 A, 200 A/μs, 390 V	140
15	VS-MURB1520xPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	1.05	15	22	15 A, 200 A/μs, 160 V	90
15	VS-15ETH03SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	300	1.25	15	32	15 A, 200 A/μs, 200 V	137
15	VS-15ETH06SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.2	15	29	15 A, 200 A/μs, 390 V	300
15	VS-ETH1506Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.25	15	29	15 A, 200 A/μs, 390 V	280
15	VS-ETU1506Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.9	15	40	15 A, 200 A/μs, 390 V	730
15	VS-15ETL06SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.05	15	220	15 A, 200 A/μs, 390 V	4300
15	VS-ETL1506Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.07	15	210	15 A, 200 A/μs, 390 V	4000
15	VS-15ETX06SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	3.2	15	22	15 A, 200 A/μs, 390 V	150
15	VS-ETX1506Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	3.4	15	20	15 A, 200 A/μs, 390 V	140
16	VS-MUR1620CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
16	VS-MUR1620CT-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
16	VS-16CTU04PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	400	1.3	8	43	8A, 200 A/μs, 200 V	210
16	VS-16CTU04-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
16	VS-MURB1620CT-1PBF^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
16	VS-16CTU04-1PBF^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
16	VS-MURB1620CTxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	0.975	8	20	8 A, 200 A/μs, 160 V	23 at R.T.
16	VS-16CTU04SxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	400	1.3	8	43	8 A, 200 A/μs, 200 V	210
20	VS-MUR2020CTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	200	1.15	16	21	10 A, 200 A/μs, 160 V	25 at R.T.
20	VS-MUR2020CT-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	200	1.15	16	21	10 A, 200 A/μs, 160 V	25 at R.T.
20	VS-20CTH03PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	300	1.25	10	31	10 A, 200 A/μs, 200 V	120
20	VS-20CTH03-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	300	1.25	10	31	10 A, 200 A/μs, 200 V	120
20	VS-20CTH03FPPBF	Isolated Power Plastic ⁽²⁾⁽⁷⁾	TO-220FPAB	300	1.25	10	31	10 A, 200 A/μs, 200 V	120
20	VS-20CTH03FP-N3	Isolated Power Plastic ⁽²⁾⁽⁶⁾	TO-220FPAB	300	1.25	10	31	10 A, 200 A/μs, 200 V	120
20	VS-MURB2020CT-1PBF^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	200	1.15	16	21	10 A, 200 A/μs, 160 V	25 at R.T.
20	VS-20CTH03-1PBF^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	300	1.25	10	31	10 A, 200 A/μs, 200 V	120

Note:

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7. RoHs compliant and totally lead-free
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Ultrafast Recovery Rectifiers

FRED Pt® standard product portfolio, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(RR) Range (V)	Max V _F at I _F		Typ t _{rr} at 25 °C (ns)	Typ Q _{rr} at 125 °C <i>setup</i> (I _F , di _F /dt, V _R)	
		Family	Type		(V)	(A)		(nC)	
20	VS-MURB2020CTxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	1.15	16	21	10 A, 200 A/μs, 160 V	25 at R.T.
20	VS-20CTH03SxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	300	1.25	10	31	10 A, 200 A/μs, 200 V	120
30	VS-30CTH02PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	200	1.05	15	26	15 A, 200 A/μs, 160 V	37 at R.T.
30	VS-30CTH02-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	200	1.05	15	26	15 A, 200 A/μs, 160 V	37 at R.T.
30	VS-30CTH03PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	300	1.25	15	33	15 A, 200 A/μs, 200 V	160
30	VS-30CTH03-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	300	1.25	15	33	15 A, 200 A/μs, 200 V	160
30	VS-30ETH06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-ETH3006-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	2.65	30	26	30 A, 200 A/μs, 200 V	280
30	VS-ETU3006-M3	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-220AC	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-30ETH06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-30CTH02FPPBF	Isolated Power Plastic ⁽²⁾⁽⁷⁾	TO-220FPAB	200	1.05	15	26	15 A, 200 A/μs, 160 V	37 at R.T.
30	VS-30CTH02FP-N3	Isolated Power Plastic ⁽²⁾⁽⁶⁾	TO-220FPAB	200	1.05	15	26	15 A, 200 A/μs, 160 V	37 at R.T.
30	VS-30ETH06FP-F3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAB	600	2.60	30	31	30 A, 200 A/μs, 200 V	345
30	VS-ETH3006FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAB	600	2.65	30	26	30 A, 200 A/μs, 200 V	280
30	VS-ETU3006FP-M3	Isolated Power Plastic ⁽¹⁾⁽⁵⁾	TO-220FPAB	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-30ETH06FP-N3	Isolated Power Plastic ⁽¹⁾⁽⁶⁾	TO-220FPAB	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-MUR3020WTPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	200	1.05	15	22	15 A, 200 A/μs, 160 V	19 at R.T.
30	VS-MUR3020WT-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	200	1.05	15	22	15 A, 200 A/μs, 160 V	19 at R.T.
30	VS-30CPH03PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	300	1.25	15	33	15 A, 200 A/μs, 200 V	160
30	VS-30CPH03-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	300	1.25	15	33	15 A, 200 A/μs, 200 V	160
30	VS-30CPU04PBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	400	1.25	15	46	15 A, 200 A/μs, 200 V	345
30	VS-30CPU04-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	400	1.25	15	46	15 A, 200 A/μs, 200 V	345
30	VS-30EPH03PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	300	1.25	30	38	30 A, 200 A/μs, 200 V	190
30	VS-30EPH03-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	300	1.25	30	38	30 A, 200 A/μs, 200 V	190
30	VS-30EPH06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-30EPH06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-APH3006-F3	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	2.60	30	36	30 A, 200 A/μs, 200 V	280
30	VS-APH3006-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.60	30	36	30 A, 200 A/μs, 200 V	280
30	VS-EPH3006-F3	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	2.60	30	36	30 A, 200 A/μs, 200 V	280
30	VS-EPH3006-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.60	30	36	30 A, 200 A/μs, 200 V	280
30	VS-EPU3006-F3	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-EPU3006-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-APU3006-F3	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-APU3006-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-30CTH02-1PBF^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁵⁾	TO-262 (I ² PAK)	200	1.05	15	26	15 A, 200 A/μs, 160 V	37 at R.T.
30	VS-30ETH06-1PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	2.6	30	31	30 A, 200 A/μs, 200 V	345

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		Family	Type		(V)	(A)		setup (I _F , di/dt, V _R)	(nC)
30	VS-ETH3006-1-M3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	2.6	30	26	30 A, 200 A/μs, 200 V	280
30	VS-ETU3006-1-M3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
30	VS-30CTH02SxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	200	1.05	15	26	15 A, 200 A/μs, 160 V	37 at R.T.
30	VS-30ETH06SxPBF	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.6	30	31	30 A, 200 A/μs, 200 V	345
30	VS-ETH3006Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁶⁾	TO-263AB (D ² PAK)	600	2.6	30	26	30 A, 200 A/μs, 200 V	280
30	VS-ETU3006Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁶⁾	TO-263AB (D ² PAK)	600	2.00	30	45	30 A, 200 A/μs, 200 V	580
60	VS-60CPU02-F	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	TO-247AC	200	1.1	30	30	30 A, 200 A/μs, 160 V	160
60	VS-60CPU02-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	200	1.1	30	30	30 A, 200 A/μs, 160 V	160
60	VS-60CPH03PBF	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	TO-247AC	300	1.25	30	39	30 A, 200 A/μs, 200 V	214
60	VS-60CPH03-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	300	1.25	30	39	30 A, 200 A/μs, 200 V	214
60	VS-60CPU04-F3	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	TO-247AC	400	1.30	30	65	30 A, 200 A/μs, 200 V	874
60	VS-60CPU04-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	400	1.30	30	65	30 A, 200 A/μs, 200 V	874
60	VS-60CPU06-F	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	TO-247AC	600	1.65	30	42	30 A, 200 A/μs, 200 V	630
60	VS-60CPU06-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	600	1.65	30	42	30 A, 200 A/μs, 200 V	630
60	VS-60APU02PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (mod)	200	1.08	60	28	60 A, 200 A/μs, 160 V	220
60	VS-60APU02-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (Mod)	200	1.08	60	28	60 A, 200 A/μs, 160 V	220
60	VS-60APU04PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (mod)	400	1.25	60	85	60 A, 200 A/μs, 200 V	1120
60	VS-60APU04-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (Mod)	400	1.25	60	85	60 A, 200 A/μs, 200 V	1120
60	VS-60APU06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (mod)	600	1.68	60	81	60 A, 200 A/μs, 200 V	1394
60	VS-60APU06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (Mod)	600	1.68	60	81	60 A, 200 A/μs, 200 V	1394
60	VS-60EPU02PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (mod)	200	1.08	60	28	60 A, 200 A/μs, 160 V	220
60	VS-60EPU02-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	200	1.08	60	28	60 A, 200 A/μs, 160 V	220
60	VS-60EPU04PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (mod)	400	1.25	60	85	60 A, 200 A/μs, 200 V	1120
60	VS-60EPU04-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	400	1.25	60	85	60 A, 200 A/μs, 200 V	1120
60	VS-60EPU06PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	TO-247AC (mod)	600	1.68	60	81	60 A, 200 A/μs, 200 V	1394
60	VS-60EPU06-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	1.68	60	81	60 A, 200 A/μs, 200 V	1394
80	VS-80EBU02^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	POWERTAB®	200	1.13	80	32	80 A, 200 A/μs, 160 V	240
80	VS-80EBU04^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	POWERTAB®	400	1.3	80	87	80 A, 200 A/μs, 200 V	1300
80	VS-80CPU02-F3	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	TO-247AC	200	0.90	40	33	40 A, 200 A/μs, 200 V	216
80	VS-80CPU02-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	200	0.90	40	33	40 A, 200 A/μs, 200 V	216
80	VS-80CPH03-F3	Power Plastic Through-Hole ⁽²⁾⁽⁸⁾	TO-247AC	300	1.25	40	41	40 A, 200 A/μs, 200 V	265
80	VS-80CPH03-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	300	1.25	40	41	40 A, 200 A/μs, 200 V	265
150	VS-150EBU02^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	POWERTAB®	200	1.13	150	34	150 A, 200 A/μs, 160 V	300
150	VS-150EBU04^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁸⁾	POWERTAB®	400	1.3	150	93	150 A, 200 A/μs, 200 V	1740

Note:

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4. Bold text indicates new product
5. Halogen-free mould compound and RoHs compliant
6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
- A. Automotive Grade Device available on request



RECTIFIERS

Ultrafast Recovery Rectifiers

Vishay's **HEXFRED®** technology combines the benefits of our ultrafast planar technology with a proprietary Schottky barrier based inner structure that enables soft and fast recovery behavior at any di/dt condition. For this reason, Vishay HEXFRED technology is the preferred choice for antiparallel diodes working with IGBTs and for power supplies working at high switching speeds. In addition, a new range products built with a halogen-free molding compound is available.

Our AEC-Q101 qualified HEXFRED devices meet the highest standards of quality for automotive applications with electrical parameters tested according to PAT and SYL. Our automotive products use a dedicated die in the front end operation and a dedicated part number at the back end, with device selection based on PAT and SYL statistical criteria. Target applications include battery charging systems, battery charging systems, EH/HEV vehicles, HID lighting, and more.

HEXFRED® AEC-Q101 Automotive

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at see setup (ns)	Typ Q _{rr} at see setup	
		Family	Type		(V)	(A)		setup (I _F , di _F /dt, V _R)	(nC)
4	VS-HFA04SD60SHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252 (DPAK)	600	1.8	4	28	4 A, 200 A/μs, 200 V	70
8	VS-HFA08TB60HM3	Power Plastic Thru Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.7	8	37	4A, 200A/μs, 200V	65
16	VS-HFA16PB120HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	1200	3	16	90	16 A, 200 A/μs, 200 V	680
25	VS-HFA25TB60HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.7	25	50	25 A, 200 A/μs, 200 V	420
25	VS-HFA25TB60SHM3	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.7	25	50	25 A, 200 A/μs, 200 V	420
30	VS-HFA30TA60CHN3	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	600	2	30	42	15 A, 200 A/μs, 200 V	220
30	VS-HFA30PB120HN3	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	1200	4.1	30	110	30 A, 200 A/μs, 200 V	1540

HEXFRED® standard product portfolio

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at see setup (ns)	Typ Q _{rr} at see setup	
		Family	Type		(V)	(A)		setup (I _F , di _F /dt, V _R)	(nC)
4	VS-HFA04TB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.8	4	28	4 A, 200 A/μs, 200 V	70
4	VS-HFA04TB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.8	4	28	4 A, 200 A/μs, 200 V	70
4	VS-HFA04SD60SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252 (DPAK)	600	1.8	4	28	4 A, 200 A/μs, 200 V	70
4	VS-HFA04SD60Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252 (DPAK)	600	1.8	4	28	4 A, 200 A/μs, 200 V	70
4	VS-HFA04TB60SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.8	4	28	4 A, 200 A/μs, 200 V	70
6	VS-HFA06TB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	1200	3	6	53	6 A, 200 A/μs, 200 V	233
6	VS-HFA06TB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	1200	3	6	53	6 A, 200 A/μs, 200 V	233
6	VS-HFA06PB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	1200	3	6	53	6 A, 200 A/μs, 200 V	233
6	VS-HFA06PB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	1200	3	6	53	6 A, 200 A/μs, 200 V	233
6	VS-HFA06TB120SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	1200	3	6	53	6 A, 200 A/μs, 200 V	233
8	VS-HFA08TA60CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	600	2.2	8	28	4 A, 200 A/μs, 200 V	70
8	VS-HFA08TA60C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	600	2.2	8	28	4 A, 200 A/μs, 200 V	70
8	VS-HFA08TB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.7	8	37	8 A, 200 A/μs, 200 V	124

Note:

1. Single die device
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TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product

5. Halogen-free mould compound and RoHs compliant

6. Halogen-free mould compound and RoHs compliant and totally lead-free

7. RoHs compliant and totally lead-free

A. Automotive Grade Device available on request

RECTIFIERS

Ultrafast Recovery Rectifiers

HEXFRED®, continued

I _{F(AV)} (A)	Device ⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F at I _F		Typ t _{rr} at see setup (ns)	Typ Q _{rr} at see setup	
		Family	Type		(V)	(A)		setup (I _F , di _F /dt, V _R)	(nC)
8	VS-HFA08TB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.7	8	37	8 A, 200 A/μs, 200 V	124
8	VS-HFA08PB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	1.7	8	37	8 A, 200 A/μs, 200 V	124
8	VS-HFA08PB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	1.7	8	37	8 A, 200 A/μs, 200 V	124
8	VS-HFA08SD60SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁸⁾	TO-252 (DPAK)	600	1.7	8	37	8 A, 200 A/μs, 200 V	124
8	VS-HFA08SD60Sx-M3^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-252 (DPAK)	600	1.7	8	37	8 A, 200 A/μs, 200 V	124
8	VS-HFA08TA60CSxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.2	8	28	4 A, 200 A/μs, 200 V	70
8	VS-HFA08TB60SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.7	8	37	8 A, 200 A/μs, 200 V	124
8	VS-HFA08TB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	1200	3.3	8	63	8 A, 200 A/μs, 200 V	335
8	VS-HFA08TB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	1200	3.3	8	63	8 A, 200 A/μs, 200 V	335
8	VS-HFA08PB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	1200	3.3	8	63	8 A, 200 A/μs, 200 V	335
8	VS-HFA08PB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	1200	3.3	8	63	8 A, 200 A/μs, 200 V	335
8	VS-HFA08TB120SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	1200	3.3	8	63	8 A, 200 A/μs, 200 V	335
12	VS-HFA12PA120CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	1200	3.9	12	53	6 A, 200 A/μs, 200 V	233
12	VS-HFA12PA120C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	1200	3.9	12	53	6 A, 200 A/μs, 200 V	233
15	VS-HFA15TB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.7	15	42	15 A, 200 A/μs, 200 V	241
15	VS-HFA15TB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.7	15	42	15 A, 200 A/μs, 200 V	241
15	VS-HFA15PB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	1.7	15	42	15 A, 200 A/μs, 200 V	241
15	VS-HFA15PB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	1.7	15	42	15 A, 200 A/μs, 200 V	241
15	VS-HFA15TB60-1PBF^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁵⁾	TO-262 (I ² PAK)	600	1.7	15	42	15 A, 200 A/μs, 200 V	241
15	VS-HFA15TB60SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.7	15	50	15 A, 200 A/μs, 200 V	241
16	VS-HFA16TA60CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	600	2.1	16	37	8 A, 200 A/μs, 200 V	124
16	VS-HFA16TA60C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	600	2.1	16	37	8 A, 200 A/μs, 200 V	124
16	VS-HFA16PA60CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	600	2.1	16	37	8 A, 200 A/μs, 200 V	124
16	VS-HFA16PA60C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	600	2.1	16	37	8 A, 200 A/μs, 200 V	124
16	VS-HFA16TA60CSxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2.1	16	37	8 A, 200 A/μs, 200 V	124
16	VS-HFA16TB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	1200	3	16	90	16 A, 200 A/μs, 200 V	680
16	VS-HFA16TB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	1200	3	16	90	16 A, 200 A/μs, 200 V	680
16	VS-HFA16PA120CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	1200	4.3	16	63	8 A, 200 A/μs, 200 V	335
16	VS-HFA16PA120C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	1200	4.3	16	63	8 A, 200 A/μs, 200 V	335
16	VS-HFA16PB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	1200	3	16	90	16 A, 200 A/μs, 200 V	680
16	VS-HFA16PB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	1200	3	16	90	16 A, 200 A/μs, 200 V	680
16	VS-HFA16TB120SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	1200	3	16	90	16 A, 200 A/μs, 200 V	680
25	VS-HFA25TB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-220AC	600	1.7	25	50	25 A, 200 A/μs, 200 V	420
25	VS-HFA25TB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-220AC	600	1.7	25	50	25 A, 200 A/μs, 200 V	420
25	VS-HFA25PB60PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	600	1.7	25	50	25 A, 200 A/μs, 200 V	420

Note:

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6. Halogen-free mould compound and RoHs compliant and totally lead-free
7. RoHs compliant and totally lead-free
- A. Automotive Grade Device available on request



RECTIFIERS

Ultrafast Recovery Rectifiers

HEXFRED®, continued

$I_{F(AV)}$ (A)	Device ⁽⁴⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F		Typ t_{rr} at see setup (ns)	Typ Q_{rr} at see setup	
		Family	Type		(V)	(A)		setup (I_F , di_F/dt , V_R)	(nC)
25	VS-HFA25PB60-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	600	1.7	25	50	25 A, 200 A/μs, 200 V	420
25	VS-HFA25TB60SxPBF^(A)	Power Plastic SMD ⁽¹⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	1.7	25	50	25 A, 200 A/μs, 200 V	420
30	VS-HFA30TA60CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-220AB	600	2	30	42	15 A, 200 A/μs, 200 V	220
30	VS-HFA30TA60C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-220AB	600	2	30	42	15 A, 200 A/μs, 200 V	220
30	VS-HFA30PA60CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	600	2	30	42	15 A, 200 A/μs, 200 V	220
30	VS-HFA30PA60C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	600	2	30	42	15 A, 200 A/μs, 200 V	220
30	VS-HFA30TA60CSxPBF^(A)	Power Plastic SMD ⁽²⁾⁽³⁾⁽⁵⁾	TO-263AB (D ² PAK)	600	2	30	42	15 A, 200 A/μs, 200 V	220
30	VS-HFA30PB120PBF	Power Plastic Through-Hole ⁽¹⁾⁽⁷⁾	TO-247AC (mod)	1200	4.1	30	110	30 A, 200 A/μs, 200 V	1540
30	VS-HFA30PB120-N3^(A)	Power Plastic Through-Hole ⁽¹⁾⁽⁶⁾	TO-247AC (mod)	1200	4.1	30	110	30 A, 200 A/μs, 200 V	1540
32	VS-HFA32PA120CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	1200	3.93	32	90	16 A, 200 A/μs, 200 V	680
32	VS-HFA32PA120C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	1200	3.93	32	90	16 A, 200 A/μs, 200 V	680
50	VS-HFA50PA60CPBF	Power Plastic Through-Hole ⁽²⁾⁽⁷⁾	TO-247AC	600	2	50	50	25 A, 200 A/μs, 200 V	420
50	VS-HFA50PA60C-N3^(A)	Power Plastic Through-Hole ⁽²⁾⁽⁶⁾	TO-247AC	600	2	50	50	25 A, 200 A/μs, 200 V	420

Note:

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RECTIFIERS

Ultrafast Recovery Rectifiers

Ultrafast Avalanche Recovery Rectifiers

$I_{F(AV)}$ (A)	Device	Package		V_{RRM} (V)	V_F 25 °C (V)	At I_F (A)	t_{rr} Max. (ns)	E_R (mJ)	At I_R (A)	T_J, T_{STG} Max. (°C)
		Family	Type							
1.0	AU1PD	Plastic SMD	D0-220AA (SMP)	200	1.5	1.0	75	20	1.0	175
1.0	AU1PG	Plastic SMD	D0-220AA (SMP)	400	1.5	1.0	75	20	1.0	175
1.0	AU1PJ	Plastic SMD	D0-220AA (SMP)	600	1.5	1.0	75	20	1.0	175
1.0	AU1PK	Plastic SMD	D0-220AA (SMP)	800	1.85	1.0	75	20	1.0	175
1.0	AU1PM	Plastic SMD	D0-220AA (SMP)	1000	1.85	1.0	75	20	1.0	175
1.0	BYG23T	Plastic SMD	D0-214AC (SMA)	1300	1.9	1.0	75	5	0.4	150
1.5	BYG20D	Plastic SMD	D0-214AC (SMA)	200	1.4	1.5	75	20	1.0	150
1.5	BYG20G	Plastic SMD	D0-214AC (SMA)	400	1.4	1.5	75	20	1.0	150
1.5	BYG20J	Plastic SMD	D0-214AC (SMA)	600	1.4	1.5	75	20	1.0	150
1.5	BYG23M	Plastic SMD	D0-214AC (SMA)	1000	1.7	1.0	75	20	1.0	150
2.0	AU2PD	Plastic SMD	T0-277A (SMPC)	200	1.9	2.0	75	20	2.5	175
2.0	AU2PG	Plastic SMD	T0-277A (SMPC)	400	1.9	2.0	75	20	2.5	175
2.0	AU2PJ	Plastic SMD	T0-277A (SMPC)	600	1.9	2.0	75	20	2.5	175
2.0	AU2PK	Plastic SMD	T0-277A (SMPC)	800	2.5	2.0	75	20	2.5	175
2.0	AU2PM	Plastic SMD	T0-277A (SMPC)	1000	2.5	2.0	75	20	2.5	175
2.0	BYG22A	Plastic SMD	D0-214AC (SMA)	50	1.1	2.0	25	20	1.0	150
2.0	BYG22B	Plastic SMD	D0-214AC (SMA)	100	1.1	2.0	25	20	1.0	150
2.0	BYG22D	Plastic SMD	D0-214AC (SMA)	200	1.1	2.0	25	20	1.0	150
3.0	AU3PD	Plastic SMD	T0-277A (SMPC)	200	1.9	3.0	75	20	2.5	175
3.0	AU3PG	Plastic SMD	T0-277A (SMPC)	400	1.9	3.0	75	20	2.5	175
3.0	AU3PJ	Plastic SMD	T0-277A (SMPC)	600	1.9	3.0	75	20	2.5	175
3.0	AU3PK	Plastic SMD	T0-277A (SMPC)	800	2.5	3.0	75	20	2.5	175
3.0	AU3PM	Plastic SMD	T0-277A (SMPC)	1000	2.5	3.0	75	20	2.5	175



RECTIFIERS

Ultrafast Recovery Rectifiers

Ultrafast Avalanche Rated Sinterglass Diodes

$I_{F(AV)}$ (A)	Device	Package		V_R V_{RRM} V_{RWM} (V)	V_F 25 °C (V)	At I_F (A)	t_{rr} Max. (ns)	E_R (mJ)	At I_R (A)
		Family	Type						
1.0	BYV26A	Sinterglass - Axial	SOD-57	200	2.5	1	30	10	1.0
1.0	BYV26B	Sinterglass - Axial	SOD-57	400	2.5	1	30	10	1.0
1.0	BYV26C	Sinterglass - Axial	SOD-57	600	2.5	1	30	10	1.0
1.0	BYV26D	Sinterglass - Axial	SOD-57	800	2.5	1	75	10	1.0
1.0	BYV26E	Sinterglass - Axial	SOD-57	1000	2.5	1	75	10	1.0
1.0	SF1200	Sinterglass - Axial	SOD-57	1200	3.4	1	75	10	0.4
1.0	SF1600	Sinterglass - Axial	SOD-57	1600	3.4	1	75	10	0.4
1.0	SF4001	Sinterglass - Axial	SOD-57	50	1.0	1	50	10	0.4
1.0	SF4002	Sinterglass - Axial	SOD-57	100	1.0	1	50	10	0.4
1.0	SF4003	Sinterglass - Axial	SOD-57	200	1.0	1	50	10	0.4
1.0	SF4004	Sinterglass - Axial	SOD-57	400	1.0	1	50	10	0.4
1.0	SF4005	Sinterglass - Axial	SOD-57	600	1.7	1	75	10	0.4
1.0	SF4006	Sinterglass - Axial	SOD-57	800	1.7	1	75	10	0.4
1.0	SF4007	Sinterglass - Axial	SOD-57	100	1.7	1	75	10	0.4
1.9	BYT53A	Sinterglass - Axial	SOD-57	50	1.1	1	50	20	1.0
1.9	BYT53B	Sinterglass - Axial	SOD-57	100	1.1	1	50	20	1.0
1.9	BYT53C	Sinterglass - Axial	SOD-57	150	1.1	1	50	20	1.0
1.9	BYT53D	Sinterglass - Axial	SOD-57	200	1.1	1	50	20	1.0
1.9	BYT53F	Sinterglass - Axial	SOD-57	300	1.1	1	50	20	1.0
1.9	BYT53G	Sinterglass - Axial	SOD-57	400	1.1	1	50	20	1.0
2.0	BYV27-100	Sinterglass - Axial	SOD-57	100	1.07	3	25	20	1.0
2.0	BYV27-150	Sinterglass - Axial	SOD-57	150	1.07	3	25	20	1.0
2.0	BYV27-200	Sinterglass - Axial	SOD-57	200	1.07	3	25	20	1.0
2.0	BYV27-50	Sinterglass - Axial	SOD-57	50	1.07	3	25	20	1.0
2.0	BYV27-600	Sinterglass - Axial	SOD-57	600	1.35	3	40	10	0.4
3.0	BYW178	Sinterglass - Axial	SOD-64	800	1.9	3	60	20	0.4
3.0	SF5400	Sinterglass - Axial	SOD-64	50	1.1	3	50	10	0.4
3.0	SF5401	Sinterglass - Axial	SOD-64	100	1.1	3	50	10	0.4
3.0	SF5402	Sinterglass - Axial	SOD-64	200	1.1	3	50	10	0.4
3.0	SF5403	Sinterglass - Axial	SOD-64	300	1.1	3	50	10	0.4
3.0	SF5404	Sinterglass - Axial	SOD-64	400	1.1	3	50	10	0.4
3.0	SF5405	Sinterglass - Axial	SOD-64	500	1.7	3	75	10	0.4
3.0	SF5406	Sinterglass - Axial	SOD-64	600	1.7	3	75	10	0.4
3.0	SF5407	Sinterglass - Axial	SOD-64	800	1.7	3	75	10	0.4

Note:

 E_R = pulse energy in avalanche mode



RECTIFIERS

Ultrafast Recovery Rectifiers

Rectifiers - Worldwide Leader in Power Rectifiers

Ultrafast Avalanche Rated Sinterglass Diodes, continued

I _{F(AV)} (A)	Device	Package		V_R V_{RRM} V_{RWM} (V)	V _F 25 °C (V)	At I _F (A)	t _{rr} Max. (ns)	E _R (mJ)	At I _R (A)
		Family	Type						
3.0	SF5408	Sinterglass - Axial	SOD-64	1000	1.7	3	75	10	0.4
3.5	BYV28-100	Sinterglass - Axial	SOD-64	100	1.1	5	30	20	1.0
3.5	BYV28-150	Sinterglass - Axial	SOD-64	150	1.1	5	30	20	1.0
3.5	BYV28-200	Sinterglass - Axial	SOD-64	200	1.1	5	30	20	1.0
3.5	BYV28-50	Sinterglass - Axial	SOD-64	50	1.1	5	30	20	1.0
3.5	BYV28-600	Sinterglass - Axial	SOD-64	600	1.35	5	50	20	1.0
4.0	BYV98-100	Sinterglass - Axial	SOD-64	150	1.1	5	35	20	1.0
4.0	BYV98-150	Sinterglass - Axial	SOD-64	150	1.1	5	35	20	1.0
4.0	BYV98-200	Sinterglass - Axial	SOD-64	200	1.1	5	35	20	1.0
4.0	BYV98-50	Sinterglass - Axial	SOD-64	100	1.1	5	35	20	1.0

Note:
E_R = pulse energy in avalanche mode



RECTIFIERS

Standard and Fast Recovery Rectifiers

Standard Rectifiers are for low-frequency general purpose use in consumer applications. Typical reverse recovery times are approximately 2 μ s. These products are offered with forward current ratings of 0.25 A to 8 A and reverse voltages as high as 4000 V. They are available in plastic, glass, and SUPERECTIFIER® constructions.

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
0.25	GL250-1 to GL250-4	SUPERECTIFIER®Axial	DO-204AL (DO-41)	1000 - 4000	3.5	0.25
0.25	GP02-20 to GP02-40	SUPERECTIFIER®Axial	DO-204AL (DO-41)	2000 - 4000	3.0	1.0
0.5	GL34A to GL34J	SUPERECTIFIER®SMD	DO-213AA (MiniMELF)	50 - 600	1.2 / 1.3	0.5
0.8	GP08A to GP08J	SUPERECTIFIER®Axial	DO-204AL (DO-41)	50 - 600	1.3	0.8
1.0	1N3611GP to 1N3614GP and 1N3957GP	SUPERECTIFIER®Axial	DO-204AL (DO-41)	200 - 1000	1	1.0
1.0	1N4001 to 1N4007	Plastic Axial	DO-204AL (DO-41)	50 - 1000	1.1	1.0
1.0	1N4001GP to 1N4007GP	SUPERECTIFIER®Axial	DO-204AL (DO-41)	50 - 1000	1.1	1.0
1.0	1N4245GP to 1N4249GP	SUPERECTIFIER®Axial	DO-204AL (DO-41)	200 - 1000	1.2	1.0
1.0	1N4383GP to 1N4385GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	200 - 600	1	1.0
1.0	1N4585GP and 1N4586GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	800 - 1000	1	1.0
1.0	1N5059GP to 1N5062GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	200 - 800	1.2	1.0
1.0	1N5614GP to 1N5622GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	200 - 1000	1.2	1.0
1.0	1N6478 to 1N6484	SUPERECTIFIER®SMD	DO-213AB (MELF)	50 - 1000	1.1	1.0
1.0	BYM10-50 to BYM10-1000	SUPERECTIFIER®SMD	DO-213AB (MELF)	50 - 1000	1.1 / 1.2	1.0
1.0	GF1A to GF1M	SUPERECTIFIER®SMD	DO-214BA (GF1)	50 - 1000	1.1 / 1.2	1.0
1.0	GL1-1200GP to GL1-1600GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	1200 - 1600	1.1	1.0
1.0	GL41A to GL41Y	SUPERECTIFIER®SMD	DO-213AB (MELF)	50 - 1600	1.1 / 1.2	1.0
1.0	GP10A to GP10Y	SUPERECTIFIER®Axial	DO-204AL (DO-41)	50 - 1600	1.1 / 1.2 / 1.3	1.0
1.0	GP10AE to GP10YE	SUPERECTIFIER®Axial	DO-204AL (DO-41)	50 - 1000	1.1 / 1.2 / 1.3	1.0
1.0	GPP10A to GPP10M	Plastic Axial ⁽²⁾	DO-204AL (DO-41)	50 - 1000	1.1	1.0
1.0	M100A to M100M	Plastic Axial	DO-204AL (DO-41)	50 - 1000	1.0 / 1.1	1.0
1.0	MPG06A to MPG06M	Plastic Axial ⁽²⁾	MPG06	50 - 1000	1.1	1.0
1.0	S1A to S1M	Plastic SMD ⁽²⁾	DO-214AC (SMA)	50 - 1000	1.1	1.0
1.0	S1PB to S1PM	Plastic SMD ⁽²⁾	DO-220AA (SMP)	100 - 1000	1.1	1.0
2.0	SA2B to SA2M	Plastic SMD ⁽²⁾	DO-214AC (SMA)	100 - 1000	1.1	2.0
1.5	1N5391 to 1N5399	Plastic Axial	DO-204AC (DO-15)	50 - 1000	1.4	1.5
1.5	1N5391GP to 1N5399GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	50 - 1000	1.4	1.5
1.5	BY448GP	SUPERECTIFIER®Axial	DO-204AC (DO-15)	1650	1.6	3.0
1.5	CGP15	SUPERECTIFIER®Axial	DO-204AC (DO-15)	1400	1.1	1.0
1.5	DGP15	SUPERECTIFIER®Axial	DO-204AC (DO-15)	1500	1.1	1.0
1.5	GP15A to GP15M	SUPERECTIFIER®Axial	DO-204AC (DO-15)	50 - 1000	1.1	1.5
1.5	S2A thru S2M	Plastic SMD ⁽²⁾	DO-214AA (SMB)	50 - 1000	1.15	1.5
1.5	S07D	Plastic SMD	DO-219AB (SMF)	200	1.1	1.0

Note:

1. Bold text indicates new product

"x" designates a number that indicates voltage or is part of a sequence

"y" designates reverse voltage, where:

A = 50 V, B = 100 V, C = 150 V, D = 200 V, F = 300 V, G = 400 V,

H = 500 V, J = 600 V, K = 800 V, M = 1000 V, N = 1100 V, Q = 1200 V,

T = 1300 V, V = 1400 V, W = 1500 V, and Y = 1600 V

2. Glass passivated die



RECTIFIERS

Standard and Fast Recovery Rectifiers

Standard Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
1.5	S07G	Plastic SMD	DO-219AB (SMF)	400	1.1	1.0
1.5	S07J	Plastic SMD	DO-219AB (SMF)	600	1.1	1.0
1.5	S07M	Plastic SMD	DO-219AB (SMF)	1000	1.1	1.0
2.0	SB2D to SB2M	Plastic SMD ⁽²⁾	DO-214AA (SMB)	200 - 1000	1.15	2.0
2.5	BY228GP	SUPERCTIFIER®Axial	DO-201AD	1500	1.6	2.5
3.0	1N5400 to 1N5408	Plastic Axial	DO-201AD	50 - 1000	1.2	3.0
3.0	1N5624GP to 1N5627GP	SUPERCTIFIER®Axial	DO-201AD	200 - 800	1.0	3.0
3.0	BY251GP to BY255GP	SUPERCTIFIER®Axial	DO-201AD	200 - 1300	1.1	3.0
3.0	BY251P to BY255P	Plastic Axia	DO-201AD	200 - 1300	1.1	3.0
3.0	CGP30	SUPERCTIFIER®Axial	DO-201AD	1400	1.2	3.0
3.0	DGP30	SUPERCTIFIER®Axial	DO-201AD	1500	1.2	3.0
3.0	GP30A to GP30M	SUPERCTIFIER®Axial	DO-201AD	50 - 1000	1.1 / 1.2	3.0
3.0	GI500 to GI510	Plastic Axial	DO-201AD	50 - 1000	1.1	9.4
3.0	P300A to P300M	Plastic Axial	DO-201AD	50 - 1000	1.2	3.0
3.0	S3A to S3M	Plastic SMD ⁽²⁾	DO-214AB (SMC)	50 - 1000	1.15	2.5
4.0	S4PB to S4PM	Plastic SMD ⁽²⁾	TO-277A (SMPC)	100 - 1000	1.10	4.0
5.0	S5A to S5M	Plastic SMD⁽²⁾	DO-214AB (SMC)	50 - 1000	1.15	5.0
5.0	S5MS	Plastic SMD⁽²⁾	DO-214AB (SMC)	1000	1.15	5.0
5.0	S5PMS	Plastic SMD⁽²⁾	TO-277A (SMPC)	1000	1.15	5.0
6.0	GI750 to GI758	Plastic Axial	P600	50 - 800	0.90 / 0.95	6.0
6.0	GPP60A to GPP60G	Plastic Axial ⁽²⁾	P600	50 - 400	1.1	6.0
6.0	P600A to P600M	Plastic Axial	P600	50 - 1000	0.9 / 1.0	6.0
8.0	NS8AT to NS8MT	Plastic Power-pack ⁽²⁾	TO-220AC	50 - 1000	1.1	8.0
8.0	NSB8AT to NSB8MT	Power-pack SMD ⁽²⁾	TO-263AB (D ² PAK)	50 - 1000	1.1	8.0
8.0	NSF8AT to NSF8MT	Isolated Power-pack ⁽²⁾	ITO-220AC	50 - 1000	1.1	8.0

Note:

1. Bold text indicates new product

"x" designates a number that indicates voltage or is part of a sequence

"y" designates reverse voltage, where:

A = 50 V, B = 100 V, C = 150 V, D = 200 V, F = 300 V, G = 400 V,

H = 500 V, J = 600 V, K = 800 V, M = 1000 V, N = 1100 V, Q = 1200 V,

T = 1300 V, V = 1400 V, W = 1500 V, and Y = 1600 V

2. Glass passivated die



RECTIFIERS

Standard and Fast Recovery Rectifiers

High-Voltage Standard Recovery Diodes – Plastic

$I_{F(AV)}$ (A)	Device ⁽³⁾⁽⁴⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
8.0	VS-8EWS02SxPBF and VS-8EWS12SxPBF	Power Plastic SMD ⁽²⁾	TO-252 (D-PAK)	800 - 1200	1.10	8.0
8.0	VS-8EWS02Sx-M3 and VS-8EWS12Sx-M3⁽⁵⁾	Power Plastic SMD ⁽²⁾	TO-252 (D-PAK)	800 - 1200	1.10	8.0
8.0	VS-8EWS16SxPBF	Power Plastic SMD ⁽²⁾	TO-252 (D-PAK)	1600	1.10	8.0
8.0	VS-8EWS16Sx-M3⁽⁵⁾	Power Plastic SMD ⁽²⁾	TO-252 (D-PAK)	1600	1.10	8.0
10.0	VS-10ETS08PBF and VS-10ETS12PBF	Power Plastic Through-Hole ⁽²⁾	TO-220AC	800 - 1200	1.10	10.0
10.0	VS-10ETS08-M3 and VS-10ETS12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC	800 - 1200	1.10	10.0
10.0	VS-10ETS08FPPBF and VS-10ETS12FPPBF	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	800 - 1200	1.10	10.0
10.0	VS-10ETS08FP-M3 and VS-10ETS12FP-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	800 - 1200	1.10	10.0
10.0	VS-10ETS08SxPBF⁽⁵⁾ to VS-10ETS12SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	TO-263AB (D ² PAK)	800 - 1200	1.10	10
20.0	VS-20ETS08PBF and VS-20ETS12PBF	Power Plastic Through-Hole ⁽²⁾	TO-220AC	800 - 1200	1.10	20.0
20.0	VS-20ETS08-M3 and VS-20ETS12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC	800 - 1200	1.10	20.0
20.0	VS-20ETS16PBF	Power Plastic Through-Hole ⁽²⁾	TO-220AC	1600	1.10	20.0
20.0	VS-20ETS16-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC	1600	1.10	20.0
20.0	VS-20ATS08PBF and VS-20ATS12PBF	Power Plastic Through-Hole ⁽²⁾	TO-220AB	800 - 1200	1.10	20.0
20.0	VS-20ATS08-M3 and VS-20ATS12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AB	800 - 1200	1.10	20.0
20.0	VS-20ETS08FPPBF and VS-20ETS12FPPBF	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	800 - 1200	1.10	20.0
20.0	VS-20ETS08FP-M3 and VS-20ETS12FP-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	800 - 1200	1.10	20.0
20.0	VS-20ETS08SxPBF⁽⁵⁾ to VS-20ETS12SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	TO-263AB (D ² PAK)	800 - 1200	1.10	20
25.0	VS-25ETS08SxPBF⁽⁵⁾ to VS-25ETS12SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	TO-263AB (D ² PAK)	800 - 1200	1.14	25
40.0	VS-40EPS08PBF and VS-40EPS12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	800 - 1200	1.10	40.0
40.0	VS-40EPS08-M3 and VS-40EPS12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	800 - 1200	1.10	40.0
40.0	VS-40EPS16PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1600	1.14	40.0
40.0	VS-40EPS16-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1600	1.14	40.0
60.0	VS-60EPS08PBF and VS-60EPS12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	800 - 1200	1.09	60.0

Note:

1. Dual center-tapped device (V_F limit at I_F is per diode)
2. Single die device
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen free



RECTIFIERS

Standard and Fast Recovery Rectifiers

High-Voltage Standard Recovery Diodes – Plastic, continued

$I_{F(AV)}$ (A)	Device ⁽³⁾⁽⁴⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
60.0	VS-60EPS08-M3 and VS-60EPS12-M3⁽⁶⁾	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	800 - 1200	1.09	60.0
60.0	VS-60EPS16PBF	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	1600	1.07	60.0
60.0	VS-60EPS16-M3⁽⁶⁾	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	1600	1.07	60.0
80.0	VS-80APS08PBF and VS-80APS12PBF	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	800 - 1200	1.17	80.0
80.0	VS-80APS08-M3 and VS-80APS12-M3⁽⁶⁾	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	800 - 1200	1.17	80.0
80.0	VS-80APS16PBF	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	1600	1.17	80.0
80.0	VS-80APS16-M3⁽⁶⁾	Power Plastic Through-Hole ⁽²⁾	T0-247AC modified (2 pins)	1600	1.17	80.0

Note:

1. Dual center-tapped device (V_F limit at I_F is per diode)
2. Single die device
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen free



RECTIFIERS

Standard and Fast Recovery Rectifiers

Standard Avalanche Recovery Rectifiers

$I_{F(AV)}$ (A)	Device	Package		V_{RRM} (V)	V_F 25 °C (V)	At I_F (A)	t_{rr} typ. (ns)	E_R (mJ)	At I_R (A)	T_J, T_{STG} Max. (°C)
		Family	Type							
1.5	AS1PD	Plastic SMD	DO-220AA (SMP)	200	1.15	1.5	1500	20	1.0	175
1.5	AS1PG	Plastic SMD	DO-220AA (SMP)	400	1.15	1.5	1500	20	1.0	175
1.5	AS1PJ	Plastic SMD	DO-220AA (SMP)	600	1.15	1.5	1500	20	1.0	175
1.5	AS1PK	Plastic SMD	DO-220AA (SMP)	800	1.15	1.5	1500	20	1.0	175
1.5	AS1PM	Plastic SMD	DO-220AA (SMP)	1000	1.15	1.5	1500	20	1.0	175
1.5	BYG10D	Plastic SMD	DO-214AC (SMA)	200	1.15	1.5	4000 (1)	20	1.0	150
1.5	BYG10G	Plastic SMD	DO-214AC (SMA)	400	1.15	1.5	4000 (1)	20	1.0	150
1.5	BYG10J	Plastic SMD	DO-214AC (SMA)	600	1.15	1.5	4000 (1)	20	1.0	150
1.5	BYG10K	Plastic SMD	DO-214AC (SMA)	800	1.15	1.5	4000 (1)	20	1.0	150
1.5	BYG10M	Plastic SMD	DO-214AC (SMA)	1000	1.15	1.5	4000 (1)	20	1.0	150
1.5	BYG10Y	Plastic SMD	DO-214AC (SMA)	1600	1.15	1.5	4000 (1)	20	1.0	150
3.0	AS3BJ	Plastic SMD	DO-214AA (SMB)	600	1.05	3.0	1500	20	2.5	175
3.0	AS3PD	Plastic SMD	DO-214AA (SMB)	200	1.1	3.0	1200	20	2.5	175
3.0	AS3PG	Plastic SMD	DO-214AA (SMB)	400	1.1	3.0	1200	20	2.5	175
3.0	AS3PJ	Plastic SMD	DO-214AA (SMB)	600	1.1	3.0	1200	20	2.5	175
3.0	AS3PK	Plastic SMD	DO-214AA (SMB)	800	1.1	3.0	1200	20	2.5	175
3.0	AS3PM	Plastic SMD	DO-214AA (SMB)	1000	1.1	3.0	1200	20	2.5	175
4.0	AS4PD	Plastic SMD	TO-277A (SMPC)	200	1.1	4.0	1800	20	2.5	175
4.0	AS4PG	Plastic SMD	TO-277A (SMPC)	400	1.1	4.0	1800	20	2.5	175
4.0	AS4PJ	Plastic SMD	TO-277A (SMPC)	600	1.1	4.0	1800	20	2.5	175
4.0	AS4PK	Plastic SMD	TO-277A (SMPC)	800	1.1	4.0	1800	20	2.5	175
4.0	AS4PM	Plastic SMD	TO-277A (SMPC)	1000	1.1	4.0	1800	20	2.5	175

Note:
(1) Maximum value



RECTIFIERS

Standard and Fast Recovery Rectifiers

Standard Avalanche Rated Sinterglass Diodes

$I_{F(AV)}$ (A)	Device	Package		V_R V_{RRM} V_{RWM} (V)	V_F 25 °C (V)	At I_F (A)	t_{rr} max. (ns)	E_R (mJ)	At I_R (A)
		Family	Type						
0.35	BYT62	Sinterglass - Axial	SOD-57	2400	3.0	0.2	5	60	1.0
1.5	BYT51A	Sinterglass - Axial	SOD-57	50	1.1	1.0	4	20	1.0
1.5	BYT51B	Sinterglass - Axial	SOD-57	100	1.1	1.0	4	20	1.0
1.5	BYT51D	Sinterglass - Axial	SOD-57	200	1.1	1.0	4	20	1.0
1.5	BYT51G	Sinterglass - Axial	SOD-57	400	1.1	1.0	4	20	1.0
1.5	BYT51J	Sinterglass - Axial	SOD-57	600	1.1	1.0	4	20	1.0
1.5	BYT51K	Sinterglass - Axial	SOD-57	800	1.1	1.0	4	20	1.0
1.5	BYT51M	Sinterglass - Axial	SOD-57	1000	1.1	1.0	4	20	1.0
2.0	1N5059	Sinterglass - Axial	SOD-57	200	1.0	1.0	4	20	1.0
2.0	1N5060	Sinterglass - Axial	SOD-57	400	1.0	1.0	4	20	1.0
2.0	1N5061	Sinterglass - Axial	SOD-57	600	1.0	1.0	4	20	1.0
2.0	1N5062	Sinterglass - Axial	SOD-57	800	1.0	1.0	4	20	1.0
2.0	BY448	Sinterglass - Axial	SOD-57	1500	1.6	3.0	2	10	0.4
2.0	BY458	Sinterglass - Axial	SOD-57	1200	1.6	3.0	2	10	0.4
2.0	BY527	Sinterglass - Axial	SOD-57	800	1.0	1.0	4	20	1.0
2.0	BYW52	Sinterglass - Axial	SOD-57	200	1.0	1.0	4	20	1.0
2.0	BYW53	Sinterglass - Axial	SOD-57	400	1.0	1.0	4	20	1.0
2.0	BYW54	Sinterglass - Axial	SOD-57	600	1.0	1.0	4	20	1.0
2.0	BYW55	Sinterglass - Axial	SOD-57	800	1.0	1.0	4	20	1.0
2.0	BYW56	Sinterglass - Axial	SOD-57	1000	1.0	1.0	4	20	1.0
2.0	BYX82	Sinterglass - Axial	SOD-57	200	1.0	1.0	4	—	—
2.0	BYX83	Sinterglass - Axial	SOD-57	400	1.0	1.0	4	—	—
2.0	BYX84	Sinterglass - Axial	SOD-57	600	1.0	1.0	4	—	—
2.0	BYX85	Sinterglass - Axial	SOD-57	800	1.0	1.0	4	—	—
2.0	BYX86	Sinterglass - Axial	SOD-57	1000	1.0	1.0	4	—	—
2.0	S330D	Sinterglass - Axial	SOD-57	1000	1.65	10.0	4	20	1.0
3.0	BY228	Sinterglass - Axial	SOD-64	1500	1.5	5.0	2	10	0.4
3.0	BY228-13	Sinterglass - Axial	SOD-64	1000	1.5	5.0	2	10	0.4
3.0	BY228-15	Sinterglass - Axial	SOD-64	1200	1.5	5.0	2	10	0.4
3.0	BYW82	Sinterglass - Axial	SOD-64	200	1.0	3.0	4	20	1.0
3.0	BYW83	Sinterglass - Axial	SOD-64	400	1.0	3.0	4	20	1.0
3.0	BYW84	Sinterglass - Axial	SOD-64	600	1.0	3.0	4	20	1.0
3.0	BYW85	Sinterglass - Axial	SOD-64	800	1.0	3.0	4	20	1.0
3.0	BYW86	Sinterglass - Axial	SOD-64	1000	1.0	3.0	4	20	1.0

Note:

 E_R = pulse energy in avalanche mode



RECTIFIERS

Standard and Fast Recovery Rectifiers

ESD Capability Rectifiers (Standard)

$I_{F(AV)}$ (A)	Device ⁽¹⁾⁽³⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
0.7	SE07PB to SE07PJ	Plastic SMD ⁽²⁾	DO-220AA (SMP)	100 to 600	1.05	0.7
0.7	MSE07PB thru MSE07PJ	Plastic SMD ⁽²⁾	MicroSMP	100 - 600	1.08	0.7
1.0	SE10PB to SE10PJ	Plastic SMD ⁽²⁾	DO-220AA (SMP)	100 to 600	1.05	1.0
1.0	MSE1PB to MSE1PJ	Plastic SMD ⁽²⁾	MicroSMP	100 to 600	1.10	1.0
1.5	SE15PB to SE15PJ	Plastic SMD ⁽²⁾	DO-220AA (SMP)	100 to 600	1.05	1.5
2.0	SE20PB thru SE20PJ	Plastic SMD⁽²⁾	DO-220AA (SMP)	100 - 600	1.05	2.0
2.0	SE20AFB thru SE20AFJ	Plastic SMD ⁽²⁾	DO-221AC (SlimSMA)	100 - 600	1.1	2.0
2.0	SE20PAB thru SE20PAJ	Plastic SMD ⁽²⁾	DO-221BC (SMPA)	100 - 600	1.10	2.0
3.0	SE30PAB thru SE30PAJ	Plastic SMD ⁽²⁾	DO-221BC (SMPA)	100 - 600	1.16	3.0
3.0	SE30AFB thru SE30AFJ	Plastic SMD ⁽²⁾	DO-221AC (SlimSMA)	100 - 600	1.1	3.0
4.0	SE40PB thru SE40PJ	Plastic SMD ⁽²⁾	TO-277A (SMPC)	100 - 600	1.1	4.0
5.0	SE50PAB thru SE50PAJ	Plastic SMD ⁽²⁾	DO-221BC (SMPA)	100 - 600	1.16	5.0
7.0	SE70PB thru SE70PJ	Plastic SMD ⁽²⁾	TO-277A (SMPC)	100 - 600	1.05	7.0
10	SE10DB thru SE10DJ	Plastic SMD ⁽²⁾	TO-263AC (SMPD)	100 - 600	1.15	10
12	SE12DB thru SE12DJ	Plastic SMD ⁽²⁾	TO-263AC (SMPD)	100 - 600	1.15	12
20	SE20DB thru SE20DJ	Plastic SMD ⁽²⁾	TO-263AC (SMPD)	100 - 600	1.20	20

Note:

1. Bold text indicates new product
Reverse voltage, where: A = 50 V, B = 100 V, C = 150 V, D = 200 V,
F = 300 V, G = 400 V, H = 500 V, J = 600 V
2. Oxide planar die



RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Recovery Rectifiers

are used for applications requiring reverse recovery times in the range of 100 ns to 750 ns. Typical uses are low-frequency SMPS, motor controllers, and electronic ballasts. These products are offered in axial, surface-mount, and power packages.

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F		T_{rr} (ns)
		Family	Type		(V)	(A)	
0.5	RGL34A to RGL34K	SUPERECTIFIER® SMD	DO-213AA (MiniMELF)	50 to 600	1.3	0.5	150 to 250
0.5	RGP02-12E to RGP02-20E	SUPERECTIFIER Axial	DO-204AL (DO-41)	1200 to 2000	1.8	0.1	300
1.0	1N4933 to 1N4937	Plastic Axial	DO-204AL (DO-41)	50 to 600	1.2	1.0	200
1.0	1N4933GP to 1N4937GP	SUPERECTIFIER Axial	DO-204AL (DO-41)	50 to 600	1.2	1.0	200
1.0	1N4942GP to 1N4948GP	SUPERECTIFIER Axial	DO-204AL (DO-41)	200 to 1000	1.3	1.0	150 to 500
1.0	1N5615GP to 1N5623GP	SUPERECTIFIER Axial	DO-204AC (DO-15)	200 to 1000	1.2	1.0	150 to 500
1.0	BA157 to BA159	Plastic Axial	DO-204AL (DO-41)	400 to 1000	1.3	1.0	150 to 500
1.0	BA157GP to BA159GP	SUPERECTIFIER Axial	DO-204AL (DO-41)	400 to 1000	1.3	1.0	150 to 500
1.0	BYM11-50 to BYM11-1000	SUPERECTIFIER SMD	DO-213AB (MELF)	50 to 1000	1.3	1.0	150 to 500
1.0	G1810 to G1818	SUPERECTIFIER Axial	DO-204AC (DO-15)	50 to 1000	1.2	1.0	750
1.0	RGF1A to RGF1M	SUPERECTIFIER SMD	DO-214BA (GF1)	50 to 1000	1.3	1.0	150 to 500
1.0	RGL41A to RGL41M	SUPERECTIFIER SMD	DO-213AB (MELF)	50 to 1000	1.3	1.0	150 to 500
1.0	RGP10A to RGP10M	SUPERECTIFIER Axial	DO-204AL (DO-41)	50 to 1000	1.3	1.0	150 to 500
1.0	RGP10AE to RGP10ME	SUPERECTIFIER Axial	DO-204AL (DO-41)	50 to 1000	1.3	1.0	150 to 500
1.0	RMPG06A to RMPG06K	Plastic Axial ⁽²⁾	MPG06	50 to 800	1.3	1.0	150 to 250
1.0	RS1A to RS1K	Plastic SMD ⁽²⁾	DO-214AC (SMA)	50 to 800	1.3	1.0	150 to 500
1.0	RS1PB to RS1PJ	Plastic SMD ⁽²⁾	DO-220AA (SMP)	100 to 600	1.3	1.0	150 to 250
1.0	SRP100A to SRP100K	Plastic Axial	DO-204AL (DO-41)	50 to 800	1.3	1.0	100 to 200
1.4	RS07B	SMF	DO-219AB	100	1.15	0.7	150
1.4	RS07D	SMF	DO-219AB	200	1.15	0.7	150
1.4	RS07G	SMF	DO-219AB	400	1.15	0.7	150
1.4	RS07J	SMF	DO-219AB	600	1.15	0.7	250
1.4	RS07K	SMF	DO-219AB	800	1.3	1.0	300
1.5	BYG21K and BYG21M	Plastic SMD ⁽²⁾	DO-214AC (SMA)	800 to 1000	1.5 / 1.6	1.0 / 1.5	120
1.5	BYG24D to BYG24J	Plastic SMD ⁽²⁾	DO-214AC (SMA)	200 to 600	1.15 / 1.25	1.0 / 1.5	140
1.5	RGP15A to RGP15M	SUPERECTIFIER Axial	DO-204AC (DO-15)	50 to 1000	1.3	1.5	150 to 500
1.5	RS2A to RS2K	Plastic SMD ⁽²⁾	DO-214AA (SMB)	50 to 800	1.3	1.5	150 to 500
2.5	RGP25A to RGP25M	SUPERECTIFIER Axial	DO-201AD	50 to 1000	1.3	2.5	150 to 500
3.0	RGP30A to RGP30M	SUPERECTIFIER® Axial	DO-201AD	50 to 1000	1.3	3.0	150 to 500
3.0	RS3A to RS3K	Plastic SMD ⁽²⁾	DO-214AB (SMC)	50 to 800	1.3	2.5	150 to 500
8.0	BY229-200 to BY229-800	Plastic Power Pack ⁽²⁾	TO-220AC	200 to 800	1.85	20.0	145
8.0	BY229X-200 to BY229X-800	Isolated Power Pack ⁽²⁾	ITO-220AC	200 to 800	1.85	20.0	145
8.0	BY229B-200 to BY229B-800	Power Pack SMD ⁽²⁾	TO-263AB (D ² PAK)	200 to 800	1.85	20.0	145

Note:

1. Bold text indicates new product
2. Glass passivated die

RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Soft Recovery Rectifiers

$I_{F(AV)}$ (A)	Device ⁽³⁾⁽⁴⁾	Package		$V_{(BR)}$ Range (V)	Max V_F @ I_F		Typ. t_{rr} @ see setup		Typ. Q_{rr} @ see setup
		Family	Type		(V)	(A)	(ns)	setup (I_F , di_F/dt)	(μC)
8.0	VS-8EWF02SxPBF thru VS-8EWS06SxPBF	Power Plastic SMD ⁽²⁾	T0-252 (DPAK)	200 - 600	1.2	8	140	8A, 25A/us	0.25
8.0	VS-8EWF02Sx-M3 to VS-8EWS06Sx-M3⁽⁵⁾	Power Plastic SMD ⁽²⁾	T0-252 (DPAK)	200 - 600	1.2	8	140	8A, 25A/us	0.25
8.0	VS-8EWF10SxPBF and VS-8EWS12SxPBF	Power Plastic SMD ⁽²⁾	T0-252 (DPAK)	1000 - 1200	1.3	8	270	8A, 25A/us	1
8.0	VS-8EWF10Sx-M3 and VS-8EWS12Sx-M3⁽⁵⁾	Power Plastic SMD ⁽²⁾	T0-252 (DPAK)	1000 - 1200	1.3	8	270	8A, 25A/us	1
10.0	VS-10ETF02PBF to VS-10ETF06PBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC	200 - 600	1.2	10	145	10A, 25A/us	0.32
10.0	VS-10ETF02-M3⁽⁵⁾ to VS-10ETF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	T0-220AC	200 - 600	1.2	10	145	10A, 25A/us	0.32
10.0	VS-10ETF10PBF and VS-10ETF12PBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC	1000 - 1200	1.33	10	310	10A, 25A/us	1.05
10.0	VS-10ETF10-M3⁽⁵⁾ and VS-10ETF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	T0-220AC	1000 - 1200	1.33	10	310	10A, 25A/us	1.05
10.0	VS-10ETF02FPPBF to VS-10ETF06FPPBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC FULL-PAK	200 - 600	1.2	10	145	10A, 25A/us	0.32
10.0	VS-10ETF02FP-M3⁽⁵⁾ to VS-10ETF06FP-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	T0-220AC FULL-PAK	200 - 600	1.2	10	145	10A, 25A/us	0.32
10.0	VS-10ETF10FPPBF and VS-10ETF12FPPBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC FULL-PAK	1000 - 1200	1.33	10	310	10A, 25A/us	1.05
10.0	VS-10ETF10FPPBF⁽⁵⁾ and VS-10ETF12FPPBF⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	T0-220AC FULL-PAK	1000 - 1200	1.33	10	310	10A, 25A/us	1.05
10.0	VS-10ETF02SxPBF⁽⁵⁾ to VS-10ETF06SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	T0-263AB (D ² PAK)	200 - 600	1.2	10	145	10A, 25A/us	0.32
10.0	VS-10ETF10SxPBF⁽⁵⁾ and VS-10ETF12SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	T0-263AB (D ² PAK)	1000 - 1200	1.33	10	310	10A, 25A/us	1.05
20.0	VS-20ETF02PBF to VS-20ETF06PBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC	200 - 600	1.3	20	160	20A, 100A/us	1.25
20.0	VS-20ETF02-M3⁽⁵⁾ to VS-20ETF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	T0-220AC	200 - 600	1.3	20	160	20A, 100A/us	1.25
20.0	VS-20ETF08PBF to VS-20ETF12PBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC	800 - 1200	1.31	20	400	20A, 25A/us	1.7
20.0	VS-20ETF08-M3⁽⁵⁾ to VS-20ETF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	T0-220AC	800 - 1200	1.31	20	400	20A, 25A/us	1.7
20.0	VS-20ETF02FPPBF to VS-20ETF06FPPBF	Power Plastic Through-Hole ⁽²⁾	T0-220AC FULL-PAK	200 - 600	1.3	20	160	20A, 100A/us	1.25

Note:

1. Dual center-tapped device (V_F limit at I_F is per diode)
2. Single die device
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen free

RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Soft Recovery Rectifiers, continued

I _{F(AV)} (A)	Device ⁽³⁾⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F @ I _F		Typ. t _{rr} @ see setup		Typ. Q _{rr} @ see setup	
		Family	Type		(V)	(A)	(ns)	setup (I _F , di _F /dt)	(μC)	
20.0	VS-20ETF02FP-M3⁽⁵⁾ to VS-20ETF06FP-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	200 - 600	1.3	20	160	20A, 100A/us	1.25	
20.0	VS-20ETF10FP-PBF and VS-20ETF12FP-PBF	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	1000 - 1200	1.31	20	400	20A, 25A/us	1.7	
20.0	VS-20ETF10FP-M3⁽⁵⁾ and VS-20ETF12FP-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-220AC FULL-PAK	1000 - 1200	1.31	20	400	20A, 25A/us	1.7	
20.0	VS-20ETF02SxPBF⁽⁵⁾ to VS-20ETF06SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	TO-263AB (D ² PAK)	200 - 600	1.3	20	160	20A, 100A/us	1.25	
20.0	VS-20ETF08SxPBF⁽⁵⁾ to VS-20ETF12SxPBF⁽⁵⁾	Power Plastic SMD ⁽²⁾⁽⁶⁾	TO-263AB (D ² PAK)	800 - 1200	1.31	20	400	20A, 25A/us	1.7	
30.0	VS-30APF02PBF to VS-30APF06PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC	200 - 600	1.41	30	160	20A, 100A/us	1.25	
30.0	VS-30APF02-M3⁽⁵⁾ to VS-30APF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC	200 - 600	1.41	30	160	20A, 100A/us	1.25	
30.0	VS-30EPF02PBF to VS-30EPF06PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	200 - 600	1.41	30	160	20A, 100A/us	1.25	
30.0	VS-30EPF02-M3⁽⁵⁾ to VS-30EPF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	200 - 600	1.41	30	160	20A, 100A/us	1.25	
30.0	VS-30APF10PBF and VS-30APF12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC	1000 - 1200	1.41	30	450	30A, 25A/us	2.16	
30.0	VS-30APF10-M3⁽⁵⁾ and VS-30APF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC	1000 - 1200	1.41	30	450	30A, 25A/us	2.16	
30.0	VS-30EPF10PBF and VS-30EPF12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1000 - 1200	1.41	30	450	30A, 25A/us	2.16	
30.0	VS-30EPF10-M3⁽⁵⁾ and VS-30EPF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1000 - 1200	1.41	30	450	30A, 25A/us	2.16	
40.0	VS-40EPF02PBF to VS-40EPF06PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	200 - 600	1.25	40	180	40A, 25A/us	0.5	
40.0	VS-40EPF02-M3⁽⁵⁾ to VS-40EPF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	200 - 600	1.25	40	180	40A, 25A/us	0.5	
40.0	VS-40EPF10PBF and VS-40EPF12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1000 - 1200	1.4	40	450	10A, 25A/us	1.8	
40.0	VS-40EPF10-M3⁽⁵⁾ and VS-40EPF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1000 - 1200	1.4	40	450	10A, 25A/us	1.8	
60.0	VS-60APF02PBF to VS-60CPF06PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC	200 - 600	1.3	60	180	60A, 25A/us	0.5	
60.0	VS-60APF02-M3⁽⁵⁾ to VS-60CPF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC	200 - 600	1.3	60	180	60A, 25A/us	0.5	

Note:

1. Dual center-tapped device (V_F limit at I_F is per diode)
2. Single die device
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
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RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Soft Recovery Rectifiers, continued

I _{F(AV)} (A)	Device ⁽³⁾⁽⁴⁾	Package		V _(BR) Range (V)	Max V _F @ I _F		Typ. t _{rr} @ see setup		Typ. Q _{rr} @ see setup
		Family	Type		(V)	(A)	(ns)	setup (I _F , di _F /dt)	(μC)
60.0	VS-60EPF02PBF to VS-60EPF06PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	200 - 600	1.3	60	180	60A, 25A/us	0.5
60.0	VS-60EPF02-M3⁽⁵⁾ to VS-60EPF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	200 - 600	1.3	60	180	60A, 25A/us	0.5
60.0	VS-60APF10PBF and VS-60APF12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC	1000 - 1200	1.4	60	480	60A, 25A/us	2.7
60.0	VS-60APF10-M3⁽⁵⁾ and VS-60APF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC	1000 - 1200	1.4	60	480	60A, 25A/us	2.7
60.0	VS-60EPF10PBF and VS-60EPF12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1000 - 1200	1.4	60	480	60A, 25A/us	2.7
60.0	VS-60EPF10-M3⁽⁵⁾ and VS-60EPF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC modified (2 pins)	1000 - 1200	1.4	60	480	60A, 25A/us	2.7
80.0	VS-80APF02PBF to VS-80EPF06PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC	200 - 600	1.25	80	190	40A, 25A/us	0.5
80.0	VS-80APF02-M3⁽⁵⁾ to VS-80EPF06-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC	200 - 600	1.25	80	190	40A, 25A/us	0.5
80.0	VS-80APF10PBF and VS-80EPF12PBF	Power Plastic Through-Hole ⁽²⁾	TO-247AC	1000 - 1200	1.35	80	480	80A, 25A/us	2.1
80.0	VS-80APF10-M3⁽⁵⁾ and VS-80EPF12-M3⁽⁵⁾	Power Plastic Through-Hole ⁽²⁾	TO-247AC	1000 - 1200	1.35	80	480	80A, 25A/us	2.1
85.0	VS-85EPF12	Power Plastic Through-Hole ⁽²⁾	POWERTAB™	1200	1.36	85	480	85A, 25A/us	2.1

Note:

1. Dual center-tapped device (V_F limit at I_F is per diode)
2. Single die device
3. x designates tube or tape&reel version on SMD products
none = tube
TR = tape and reel centered (for DPAK only)
TRL = tape and reel left oriented
TRR = tape and reel right oriented

4. Bold text indicates new product
5. Halogen free



RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Avalanche Recovery Rectifiers

$I_{F(AV)}$ (A)	Device	Package		V_{RRM} (V)	V_F 25 °C (V)	$At I_F$ (A)	t_{rr} Max. (ns)	E_R (mJ)	$At I_R$ (A)	T_J, T_{STG} Max. (°C)
		Family	Type							
1.0	AR1PD	Plastic SMD	DO-220AA (SMP)	200	1.25	1.0	140	20	1.0	175
1.0	AR1PG	Plastic SMD	DO-220AA (SMP)	400	1.25	1.0	140	20	1.0	175
1.0	AR1PJ	Plastic SMD	DO-220AA (SMP)	600	1.25	1.0	140	20	1.0	175
1.0	AR1PK	Plastic SMD	DO-220AA (SMP)	800	1.6	1.0	120	20	1.0	175
1.0	AR1PM	Plastic SMD	DO-220AA (SMP)	1000	1.6	1.0	120	20	1.0	175
1.5	BYG21K	Plastic SMD	DO-214AC (SMA)	800	1.6	1.5	120	20	1.0	150
1.5	BYG21M	Plastic SMD	DO-214AC (SMA)	1000	1.6	1.5	120	20	1.0	150
1.5	BYG24D	Plastic SMD	DO-214AC (SMA)	200	1.25	1.5	140	20	1.0	150
1.5	BYG24G	Plastic SMD	DO-214AC (SMA)	400	1.25	1.5	140	20	1.0	150
1.5	BYG24J	Plastic SMD	DO-214AC (SMA)	600	1.25	1.5	140	20	1.0	150
3.0	AR3PD	Plastic SMD	TO-277A (SMPC)	200	1.6	3.0	140	20	2.5	175
3.0	AR3PG	Plastic SMD	TO-277A (SMPC)	400	1.6	3.0	140	20	2.5	175
3.0	AR3PJ	Plastic SMD	TO-277A (SMPC)	600	1.6	3.0	140	20	2.5	175
3.0	AR3PK	Plastic SMD	TO-277A (SMPC)	800	1.9	3.0	120	20	2.5	175
3.0	AR3PM	Plastic SMD	TO-277A (SMPC)	1000	1.9	3.0	120	20	2.5	175
4.0	AR4PD	Plastic SMD	TO-277A (SMPC)	200	1.6	4.0	140	20	2.5	175
4.0	AR4PG	Plastic SMD	TO-277A (SMPC)	400	1.6	4.0	140	20	2.5	175
4.0	AR4PJ	Plastic SMD	TO-277A (SMPC)	600	1.6	4.0	140	20	2.5	175
4.0	AR4PK	Plastic SMD	TO-277A (SMPC)	800	1.9	4.0	120	20	2.5	175
4.0	AR4PM	Plastic SMD	TO-277A (SMPC)	1000	1.9	4.0	120	20	2.5	175



RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Avalanche Rated Sinterglass Diodes

$I_{F(AV)}$ (A)	Part Number	Package		V_R V_{RRM} V_{RWM} (V)	V_F 25 °C (V)	At I_F (A)	t_{rr} Max. (ns)	E_R (mJ)	At I_R (A)
		Family	Type						
0.25	BY203-12S	Sinterglass - Axial	SOD-57	1200	2.4	0.2	300	10	0.4
0.25	BY203-16S	Sinterglass - Axial	SOD-57	1600	2.4	0.2	300	10	0.4
0.25	BY203-20S	Sinterglass - Axial	SOD-57	2000	2.4	0.2	300	10	0.4
0.8	BY268	Sinterglass - Axial	SOD-57	1400	1.25	0.4	400	10	0.4
0.8	BY269	Sinterglass - Axial	SOD-57	1600	1.25	0.4	400	10	0.4
1.25	BYT54A	Sinterglass - Axial	SOD-57	50	1.5	1.0	100	10	0.4
1.25	BYT54B	Sinterglass - Axial	SOD-57	100	1.5	1.0	100	10	0.4
1.25	BYT54D	Sinterglass - Axial	SOD-57	200	1.5	1.0	100	10	0.4
1.25	BYT54G	Sinterglass - Axial	SOD-57	400	1.5	1.0	100	10	0.4
1.25	BYT54J	Sinterglass - Axial	SOD-57	600	1.5	1.0	100	10	0.4
1.25	BYT54K	Sinterglass - Axial	SOD-57	800	1.5	1.0	100	10	0.4
1.25	BYT54M	Sinterglass - Axial	SOD-57	1000	1.5	1.0	100	10	0.4
1.4	BYT52A	Sinterglass - Axial	SOD-57	50	1.3	1.0	200	10	0.4
1.4	BYT52B	Sinterglass - Axial	SOD-57	100	1.3	1.0	200	10	0.4
1.4	BYT52D	Sinterglass - Axial	SOD-57	200	1.3	1.0	200	10	0.4
1.4	BYT52G	Sinterglass - Axial	SOD-57	400	1.3	1.0	200	10	0.4
1.4	BYT52J	Sinterglass - Axial	SOD-57	600	1.3	1.0	200	10	0.4
1.4	BYT52K	Sinterglass - Axial	SOD-57	800	1.3	1.0	200	10	0.4
1.4	BYT52M	Sinterglass - Axial	SOD-57	1000	1.3	1.0	200	10	0.4
1.5	BYV12	Sinterglass - Axial	SOD-57	100	1.5	1.0	300	10	0.4
1.5	BYV13	Sinterglass - Axial	SOD-57	400	1.5	1.0	300	10	0.4
1.5	BYV14	Sinterglass - Axial	SOD-57	600	1.5	1.0	300	10	0.4
1.5	BYV15	Sinterglass - Axial	SOD-57	800	1.5	1.0	300	10	0.4
1.5	BYV16	Sinterglass - Axial	SOD-57	1000	1.5	1.0	300	10	0.4
2.0	BYV37	Sinterglass - Axial	SOD-57	800	1.1	1.0	300	10	0.4
2.0	BYV38	Sinterglass - Axial	SOD-57	1000	1.1	1.0	300	10	0.4
2.0	BYW32	Sinterglass - Axial	SOD-57	200	1.1	1.0	200	10	0.4
2.0	BYW33	Sinterglass - Axial	SOD-57	300	1.1	1.0	200	10	0.4
2.0	BYW34	Sinterglass - Axial	SOD-57	400	1.1	1.0	200	10	0.4
2.0	BYW35	Sinterglass - Axial	SOD-57	500	1.1	1.0	200	10	0.4
2.0	BYW36	Sinterglass - Axial	SOD-57	600	1.1	1.0	200	10	0.4
2.9	BYM36D	Sinterglass - Axial	SOD-64	800	1.78	3	150	20	1
2.9	BYM36E	Sinterglass - Axial	SOD-64	1000	1.78	3	150	20	1
3	1N5417	Sinterglass - Axial	SOD-64	200	1.1	3	100	20	1
3	1N5418	Sinterglass - Axial	SOD-64	400	1.1	3	100	20	1
3	BYM36A	Sinterglass - Axial	SOD-64	200	1.6	3	100	20	1
3	BYM36B	Sinterglass - Axial	SOD-64	400	1.6	3	100	20	1

Note:

 E_R = pulse energy in avalanche mode



RECTIFIERS

Standard and Fast Recovery Rectifiers

Fast Avalanche Rated Sinterglass Diodes, continued

$I_{F(AV)}$ (A)	Part Number	Package		V_R V_{RRM} V_{RWM} (V)	V_F 25 °C (V)	At I_F (A)	t_{rr} Max. (ns)	E_R (mJ)	At I_R (A)
		Family	Type						
3	BYM36C	Sinterglass - Axial	SOD-64	600	1.6	3	100	20	1
3	BYT56A	Sinterglass - Axial	SOD-64	50	1.4	3	100	10	0.4
3	BYT56B	Sinterglass - Axial	SOD-64	100	1.4	3	100	10	0.4
3	BYT56D	Sinterglass - Axial	SOD-64	200	1.4	3	100	10	0.4
3	BYT56G	Sinterglass - Axial	SOD-64	400	1.4	3	100	10	0.4
3	BYT56J	Sinterglass - Axial	SOD-64	600	1.4	3	100	10	0.4
3	BYT56K	Sinterglass - Axial	SOD-64	800	1.4	3	100	10	0.4
3	BYT56M	Sinterglass - Axial	SOD-64	1000	1.4	3	100	10	0.4
3	BYT77	Sinterglass - Axial	SOD-64	800	1.2	3	250	10	0.4
3	BYT78	Sinterglass - Axial	SOD-64	1000	1.2	3	250	10	0.4
3	BYW172D	Sinterglass - Axial	SOD-64	200	1.1	3	100	20	1
3	BYW172F	Sinterglass - Axial	SOD-64	300	1.1	3	100	20	1
3	BYW172G	Sinterglass - Axial	SOD-64	400	1.1	3	100	20	1
3	BYW72	Sinterglass - Axial	SOD-64	200	1.1	3	200	10	0.4
3	BYW73	Sinterglass - Axial	SOD-64	300	1.1	3	200	10	0.4
3	BYW74	Sinterglass - Axial	SOD-64	400	1.1	3	200	10	0.4
3	BYW75	Sinterglass - Axial	SOD-64	500	1.1	3	200	10	0.4
3	BYW76	Sinterglass - Axial	SOD-64	600	1.1	3	200	10	0.4

Note:

 E_R = pulse energy in avalanche mode



RECTIFIERS

Bridge Rectifiers

Bridge Rectifiers are essential for any electronic equipment which requires full wave rectification of an AC power source. The bridge rectifier is comprised of four separate rectifier components configured into a “bridge” arrangement in a single package. Vishay manufactures a complete line of bridge rectifiers including fast recovery, surface-mount, and single in-line types.

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
1.2	1KAB10E thru 1KAB100E	Single Phase Rectifier Bridge	KAB	50 - 1000	1.1	1.2
1.9	2KBB05 thru 2KBB100	Single In Line Phase Rectifier Bridge	KBB	50 - 1000	1.1	1.9
2	2KBP005 thru 2KBP10	Single In Line Phase Rectifier Bridge	KBP	50 - 1000	1.0	1.0
3	KBPC1005 thru KBPC110	Single Phase Rectifier Bridge	KBPC	50 - 1000	1.1	1.5
6	KBPC6005 thru KBPC610	Single Phase Rectifier Bridge	KBPC	50 - 1000	1.2	3.0
8	KBPC8005 thru KBPC810	Single Phase Rectifier Bridge	KBPC	50 - 1000	1.0	3.0
25	GBPC2502A thru GBPC2512A	GBPC with fast-on lugs	GBPC25A	200 - 1200	1.1	25
25	GBPC2502W thru GBPC2512W	GBPC with wire leads	GBPC25W	200 - 1200	1.1	25
25	P131 thru P135	Single phase fully-controlled bridge	PACE PAK (D-19)	400 - 1200	1.35	79
25	26MB05A thru 26MB160A	Single Phase Rectifier Bridge	MB (D-34)	50 - 1600	1.25	40
25	P121 thru P125	Single phase semi-controlled bridge doubler	PACE PAK (D-19)	400 - 1200	1.35	79
25	P101 thru P105 ⁽³⁾⁽⁴⁾	Single phase semi-controlled bridge common cathode	PACE PAK (D-19)	400 - 1200	1.35	79
25	26MT10 thru 26MT160	Three Phase Bridge	MT (D-63)	100 - 1600	1.26	40
35	GBPC3502A thru GBPC3512A	GBPC with fast-on lugs	GBPC35A	200 - 1200	1.1	35
35	GBPC3502W thru GBPC3512W	GBPC with wire leads	GBPC35W	200 - 1200	1.1	35
35	36MB05A thru 36MB160A	Single Phase Rectifier Bridge	MB (D-34)	50 - 1600	1.3	55
35	36MT10 thru 36MT160	Three Phase Bridge	MT (D-63)	100 - 1600	1.19	40
40	P431 thru P435	Single phase fully-controlled bridge	PACE PAK (D-19)	400 - 1200	1.4	126
40	P421 thru P425	Single phase semi-controlled bridge doubler	PACE PAK (D-19)	400 - 1200	1.4	126
40	P401 thru P405 ⁽³⁾⁽⁴⁾	Single phase semi-controlled bridge common cathode	PACE PAK (D-19)	400 - 1200	1.4	126
40	40MT160KPBF	Three Phase Bridge	MTK (Screwable)	1600	2.0	100
45	40MT160BPBPF and 40MT160PAPBF	Three Phase Bridge	MTP.PA and MTP.PB	1600	1.45	40
50	54MT80KPBF thru 54MT160KPBF	Three Phase AC Switch	MTK (Screwable)	800 - 1600	2.68	150
55	53MT80KPBF thru 53MT160KPBF	Full-controlled three phase bridge	MTK (Screwable)	800 - 1600	2.68	150
55	51MT80KPBF thru 51MT160KPBF	Negative half-controlled three phase bridge	MTK (Screwable)	800 - 1600	2.68	150
55	52MT80KPBF thru 52MT160KPBF	Positive half-controlled three phase bridge	MTK (Screwable)	800 - 1600	2.68	150
60	60MT80KPBF thru 60MT160KPBF	Three Phase Bridge	MTK (Screwable)	800 - 1600	1.75	100
70	70MT80KPBF thru 70MT160KPBF	Three Phase Bridge	MTK (Screwable)	800 - 1600	1.6	100
75	70MT160BPBPF and 70MT160PAPBF	Three Phase Bridge	MTP.PA and MTP.PB	1600	1.45	70
75	100MT160BPBPF and 100MT160PAPBF	Three Phase Bridge	MTP.PA and MTP.PB	1600	1.51	100
90	93MT80KPBF thru 93MT160KPBF	Full-controlled three phase bridge	MTK (Screwable)	800 - 1600	1.65	150
90	113MT80KPBF thru 113MT160KPBF	Full-controlled three phase bridge	MTK (Screwable)	800 - 1600	1.57	150

Note:

1. Bold Text = New Products , Blue Text = Under development

2. V_F limits are per diode

3. Voltage Suppressor Available (identified by suffix “K”)

4. With both voltage suppression and freewheeling diode available (identified by suffix “KW”)



RECTIFIERS

Bridge Rectifiers

Bridge Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F	
		Family	Type		(V)	(A)
90	91MT80KPBF thru 91MT160KPBF	Negative half-controlled three phase bridge	MTK (Screwable)	800 - 1600	1.65	150
90	111MT80KPBF thru 111MT160KPBF	Negative half-controlled three phase bridge	MTK (Screwable)	800 - 1600	1.57	150
90	92MT80KPBF thru 92MT160KPBF	Positive half-controlled three phase bridge	MTK (Screwable)	800 - 1600	1.65	150
90	112MT80KPBF thru 112MT160KPBF	Positive half-controlled three phase bridge	MTK (Screwable)	800 - 1600	1.57	150
90	94MT80KPBF thru 94MT160KPBF	Three Phase AC Switch	MTK (Screwable)	800 - 1600	1.55	150
90	90MT80KPBF thru 90MT160KPBF	Three Phase Bridge	MTK (Screwable)	800 - 1600	1.6	150
100	104MT80KPBF thru 104MT160KPBF	Three Phase AC Switch	MTK (Screwable)	800 - 1600	1.53	150
110	110MT80KPBF thru 110MT160KPBF	Three Phase Bridge	MTK (Screwable)	800 - 1600	1.4	150
130	130MT80KPBF thru 130MT160KPBF	Three Phase Bridge	MTK (Screwable)	800 - 1600	1.63	200
160	160MT80KPBF thru 160MT160KPBF	Three Phase Bridge	MTK (Screwable)	800 - 1600	1.49	200
200	200MT40KPBF	Three Phase Bridge	MTK (Screwable)	400	1.4	200

Note:

1. Bold Text = New Products , Blue Text = Under development
2. V_F limits are per diode
3. Voltage Suppressor Available (identified by suffix "K")

4. With both voltage suppression and freewheeling diode available (identified by suffix "KW")



RECTIFIERS

Bridge Rectifiers

Bridge Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F ⁽⁵⁾	
		Family	Type		(V)	(A)
0.5	MB2M, MB4M, and MB6M	Mini-bridge ⁽²⁾	MBM	200 - 600	1.0	0.4
0.5	B2M, B4M, and B6M	Mini-bridge ⁽²⁾	MBM	200 - 600	1.0	0.5
0.5	MB2S, MB4S, and MB6S	Mini-bridge (SMD) ⁽²⁾	MBS (TO-269AA)	200 - 600	1.0	0.4
0.5	B2S, B4S and B6S	Mini-bridge (SMD) ⁽²⁾	MBS (TO-269AA)	200 - 600	1.0	0.5
0.5	RMB2S and RMB4S	Recovery mini-bridge (SMD) ⁽²⁾	MBS (TO-269AA)	200 - 400	1.25	0.4
0.9	BxxC800DM	Dual in-line ⁽²⁾	DFM	65 - 600	1.0	0.9
0.9	B40C800G to B380C800G	WOG ⁽²⁾	WG	65 - 600	1.0	0.9
1.0	B40C1000G to B380C1000G	WOG ⁽²⁾	WG	65 - 600	1.0	1.0
1.0	DF005M to DF10M	Dual in-line ⁽²⁾	DFM	50 - 1000	1.1	1.0
1.0	DF005MA to DF10MA	Dual in-line ⁽²⁾	DFM	50 - 1000	1.1	1.0
1.0	DF005S to DF10S	Dual in-line (SMD) ⁽²⁾	DFS	50 - 1000	1.1	1.0
1.0	DF005SA to DF10SA	Dual in-line (SMD) ⁽²⁾	DFS	50 - 1000	1.1	1.0
1.0	EDF1AM to EDF1DM	Ultrafast dual in-line ⁽²⁾⁽³⁾	DFM	50 - 200	1.05	1.0
1.0	EDF1AS to EDF1DS	Ultrafast dual in-line (SMD) ⁽²⁾⁽³⁾	DFS	50 - 200	1.05	1.0
1.0	MBL104S thru MBL110S	Mini-bridge (SMD) ⁽²⁾	MBLS	400 - 1000	0.95	0.4
1.5	3N246 to 3N252	Single in-line ⁽²⁾	KBPM	50 - 1000	1.0 / 1.3	1.0 / 1.57
1.5	B40C1500G to B380C1500G	WOG ⁽²⁾	WG	65 - 600	1.0	1.5
1.5	DF15005S to DF1510S	Dual in-line (SMD) ⁽²⁾	DFS	50 - 1000	1.1	1.5
1.5	DFL15005S to DFL1510S	Low-profile DIL (SMD) ⁽²⁾	L-DFS	50 - 1400	1.1	1.5
1.5	G2SB20, G2SB60, and G2SB80	Single in-line ⁽²⁾⁽⁴⁾	GBL	200 - 800	1.0	0.75
1.5	G2SBA20, G2SBA60, and G2SBA80	Single in-line ⁽²⁾⁽⁴⁾	GBL	200 - 800	1.0	0.75
1.5	KBP005M to KBP10M	Single in-line ⁽²⁾	KBPM	50 - 1000	1.0 / 1.3	1.0 / 1.57
1.5	W005G to W10G	WOG ⁽²⁾	WG	50 - 1000	1.0	1.0
2.0	2KBP005M to 2KBP10M	Single in-line ⁽²⁾	KBPM	50 - 1000	1.1	3.14
2.0	2W005G to 2W10G	WOG ⁽²⁾	WG	50 - 1000	1.1	2.0
2.0	3N253 to 3N259	Single in-line ⁽²⁾	KBPM	50 - 1000	1.1	3.14
3.0	GBPC1005 to GBPC110	GBPC with wire leads ⁽²⁾	GBPC1	50 - 1000	1.0	1.5
3.0	3KBP005M to 3KBP08M	Single in-line ⁽²⁾	KBPM	50 - 800	1.05	3.0
4.0	G3SBA20S, G3SBA60, and G3SBA80	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GBU	200 - 800	1.0	2.0
4.0	GBL005 to GBL10	Single in-line ⁽²⁾	GBL	50 - 1000	1.0	4.0
4.0	GBLA005 to GBLA10	Single in-line ⁽²⁾	GBL	50 - 1000	1.0	4.0
4.0	GBU4A to GBU4M	Single in-line with mounting hole ⁽²⁾	GBU	50 - 1000	1.0	4.0
4.0	KBL005 to KBL10	Single in-line	KBL	50 - 1000	1.1	4.0
4.0	KBU4A to KBU4M	Single in-line with mounting hole	KBU	50 - 1000	1.0	4.0
6.0	GBPC6005 to GBPC610	GBPC with wire leads ⁽²⁾	GBPC6	50 - 1000	1.0	3.0
6.0	GBU6A to GBU6M	Single in-line with mounting hole ⁽²⁾	GBU	50 - 1000	1.0	6.0
6.0	G5SBA20, G5SBA60, and G5SBA80	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GBU	200 - 800	1.05	3.0
6.0	GSIB620 to GSIB680	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	0.95	3.0
6.0	GSIB620N, GSIB640N, GSIB660N, GSIB680N	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	0.95	3.0
6.0	GSIB6A20 to GSIB6A80	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	1.0	3.0
6.0	GSIB6A20N, GSIB6A40N, GSIB6A60N, GSIB6A80N	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	1.0	3.0
6.0	KBU6A to KBU6M	Single in-line with mounting hole	KBU	50 - 1000	1.0	6.0
6.0	VSIB620 thru VSIB680	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	0.95	3.0
6.0	VSIB6A20 thru VSIB6A80	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	1.0	3.0

Note:

1. Bold text indicates new product
2. Glass passivated die
3. t_{rr} = 50ns max. for EDF1 types

4. Japanese electrical specifications

5. V_F limits are per diode



RECTIFIERS

Bridge Rectifiers

Bridge Rectifiers, continued

$I_{F(AV)}$ (A)	Device ⁽¹⁾	Package		$V_{(BR)}$ Range (V)	Max V_F at I_F ⁽⁵⁾	
		Family	Type		(V)	(A)
8.0	GBU8A to GBU8M	Single in-line with mounting hole ⁽²⁾	GBU	50 - 1000	1.0	8.0
8.0	KBU8A to KBU8M	Single in-line with mounting hole	KBU	50 - 1000	1.0	8.0
10	BU1006 to BU1010	Single in-line with mounting hole ⁽²⁾	BU	600 - 1000	1.05	5
10	BU1006A to BU1010A	Single in-line with mounting hole⁽²⁾	BU	600 - 1000	1.1	5
10	VSIB10A20 thru VSIB10A80	Single in-line with mounting hole ⁽²⁾	GSIB-5S	200 - 800	1	5
12	BU1206 to BU1210	Single in-line with mounting hole⁽²⁾	BU	600 - 1000	1.05	6
12	GBPC12005 to GBPC1210	GBPC with fast-on lugs ⁽²⁾	GBPC12-35	50 - 1000	1.1	6.0
12	GBPC12005W to GBPC1210W	GBPC with wire leads ⁽²⁾	GBPC12-35W	50 - 1000	1.1	6.0
15	BU1506 to BU1510	Single in-line with mounting hole⁽²⁾	BU	600 - 1000	1.05	7.5
15	GBPC15005 to GBPC1510	GBPC with fast-on lugs ⁽²⁾	GBPC12-35	50 - 1000	1.1	7.5
15	GBPC15005W to GBPC1510W	GBPC with wire leads ⁽²⁾	GBPC12-35W	50 - 1000	1.1	7.5
15	GSIB1520 to GSIB1580	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	0.95	7.5
15	GSIB1520N, GSIB1540N, GSIB1560N, GSIB1580N	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	0.95	7.5
15	GSIB15A20 to GSIB15A80	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.05	7.5
15	GSIB15A20N, GSIB15A40N, GSIB15A60N, GSIB15A80N	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.05	7.5
15	VSIB1520 thru VSIB1580	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	0.95	7.5
15	VSIB15A20 thru VSIB15A80	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.0	7.5
20	BU2006 to BU2010	Single in-line with mounting hole ⁽²⁾	BU	600 - 1000	1.05	10
20	GSIB2020 to GSIB2080	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.1	10
20	GSIB2020N, GSIB2040N, GSIB2060N, GSIB2080N	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.1	10
20	VSIB2020 thru VSIB2080	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1	10
25	BU2506 to BU2510	Single in-line with mounting hole ⁽²⁾	BU	600 - 1000	1.05	12.5
25	GBPC25005 to GBPC2510	GBPC with fast-on lugs ⁽²⁾	GBPC12-35	50 - 1000	1.1	12.5
25	GBPC25005W to GBPC2510W	GBPC with wire leads ⁽²⁾	GBPC12-35W	50 - 1000	1.1	12.5
25	GSIB2520 to GSIB2580	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.05	12.5
25	GSIB2520N, GSIB2540N, GSIB2560N, GSIB2580N	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1.05	12.5
25	VSIB2520 thru VSIB2580	Single in-line with mounting hole ⁽²⁾⁽⁴⁾	GSIB-5S	200 - 800	1	12.5
30	PB3006 to PB3010	Single in-line with mounting hole⁽²⁾	PB	600 - 1000	1.10	15
35	GBPC35005 to GBPC3510	GBPC with fast-on lugs ⁽²⁾	GBPC12-35	50 - 1000	1.1	17.5
35	GBPC35005W to GBPC3510W	GBPC with wire leads ⁽²⁾	GBPC12-35W	50 - 1000	1.1	17.5
35	PB3506 to PB3510	Single in-line with mounting hole ⁽²⁾	PB	600 - 1000	1.10	17.5
40	PB4006 to PB4010	Single in-line with mounting hole ⁽²⁾	PB	600 - 1000	1.10	20
45	PB5006 to PB5010	Single in-line with mounting hole ⁽²⁾	PB	600 - 1000	1.10	22.5

Note:

1. Bold text indicates new product
2. Glass passivated die
3. t_{rr} = 50ns max. for EDF1 types

4. Japanese electrical specifications

5. V_F limits are per diode

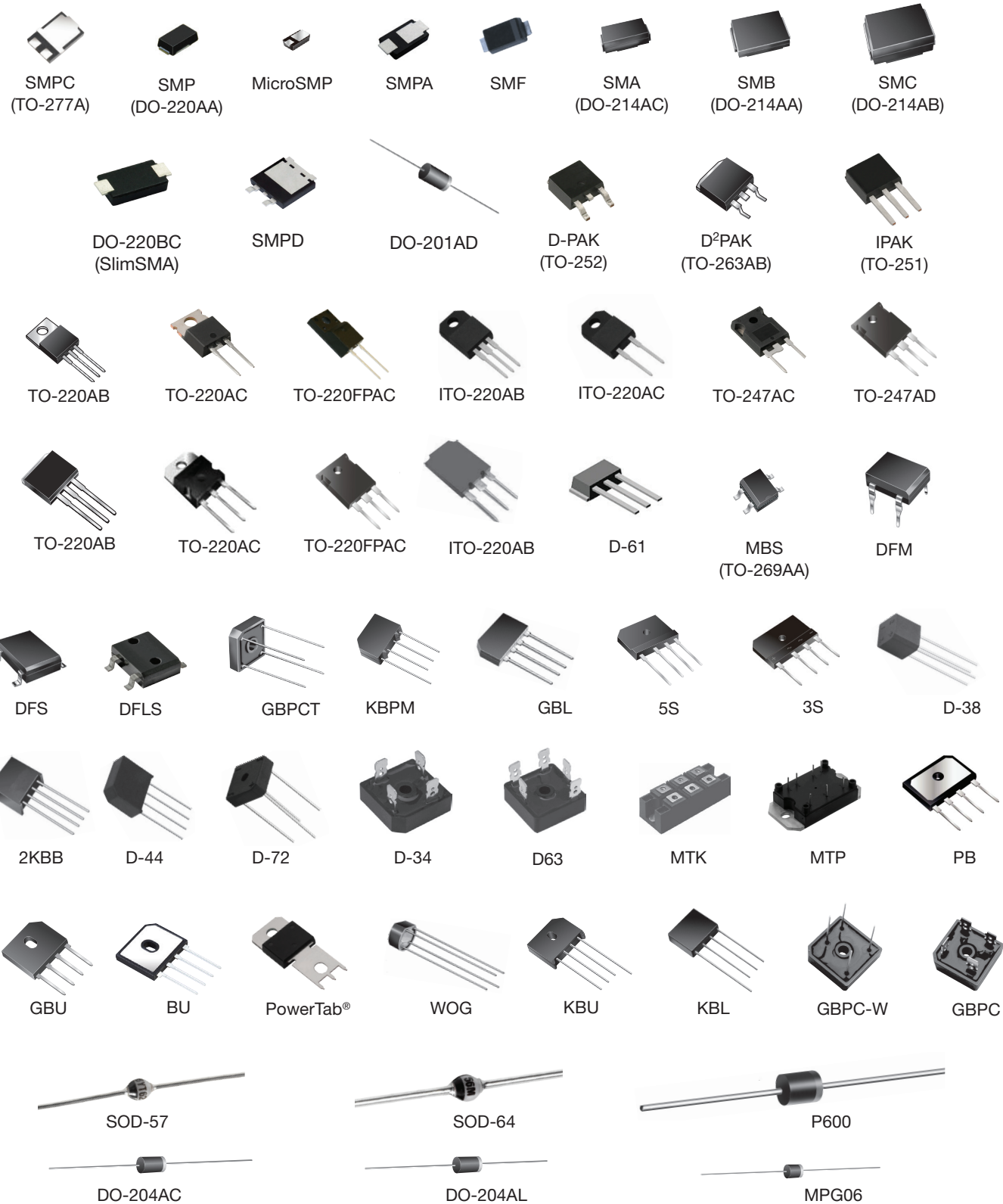


RECTIFIERS

Featured Product Information

Rectifiers - Worldwide Leader in Power Rectifiers

Rectifier Packages





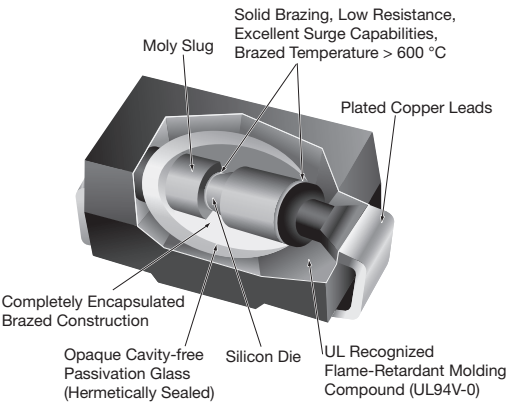
RECTIFIERS

Featured Product Information

Sample Package Construction

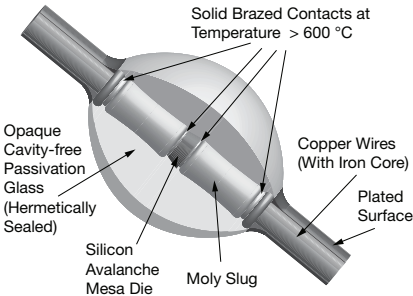
SUPERECTIFIER®

The SUPERECTIFIER is exactly that: a super rectifier. This highly-reliable and cost-effective rectifier is the result of a combination of patented technologies. No other 0.25 A to 3.0 A rectifiers of any kind — plastic, glass, or metal — can match the SUPERECTIFIER combination of features that result from Vishay's unique glass-plastic construction. SUPERECTIFIER products are offered in standard, fast, and ultrafast types for both axial and surface mounting.



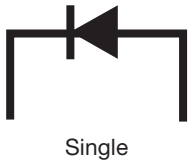
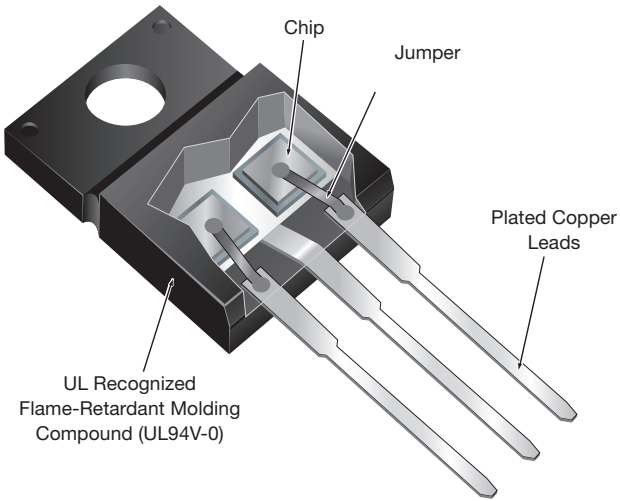
SINTERGLASS RECTIFIER

The glass passivated rectifier is a hermetically sealed, diffused junction rectifier with unsurpassed operating and surge capabilities at high temperatures. An extremely pure, specially developed glass applied in direct contact with the silicon junction, creates an ideal cavity-free passivating medium. Glass rectifiers are offered in standard, fast, and ultrafast types.



ITO-220AB

Vishay offers the TO-220 power package with either the heat sink exposed or with an isolated body, as shown below.



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