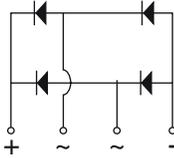


Enhanced isoCink+™ Bridge Rectifiers



isoCink+™
Case Style BU



Note

- Tested to UL standard for safety electrically isolated semiconductor devices. UL 1557 4th edition. Dielectric tested to maximum case, storage and junction temperature to 175 °C to withstand 1500 V. Epoxy meets UL 94 V-0 flammability rating.

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	25 A
V_{RRM}	600 V, 800 V
I_{FSM}	300 A
I_R	5 μ A
V_F at $I_F = 12.5$ A	0.87 V
T_J max.	175 °C
Package	BU
Diode variations	In-line

FEATURES

- UL recognition file number E309391 (QQQX2) UL 1557 (see note)
- Thin single in-line package
- Superior thermal conductivity
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances and white-goods applications.

MECHANICAL DATA

Case: BU

Molding compound meets UL 94 V-0 flammability rating Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 1A whisker test

Polarity: As marked on body

Mounting Torque: 10 cm-kg (8.8 inches-lbs) max.

Recommended Torque: 5.7 cm-kg (5 inches-lbs)

MAXIMUM RATINGS ($T_A = 25$ °C unless otherwise noted)				
PARAMETER	SYMBOL	BU25H06	BU25H08	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	V
Average rectified forward current (Fig. 1, 2)	I_O	$T_C = 60$ °C (1)		25
		$T_A = 25$ °C (2)		3.5
Non-repetitive peak forward surge current, 8.3 ms single sine-wave, $T_J = 25$ °C	I_{FSM}	300		A
Rating for fusing ($t < 8.3$ ms) $T_J = 25$ °C	I^2t	373		A ² s
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +175		°C

Notes

- With 60 W air cooled heatsink
- Without heatsink, free air



ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)						
PARAMETER	TEST CONDITIONS	SYMBOL	TYP.	MAX.	UNIT	
Maximum instantaneous forward voltage per diode ⁽¹⁾	I _F = 12.5 A	T _A = 25 °C	V _F	0.97	1.05	V
		T _A = 125 °C		0.87		
Maximum reverse current per diode	rated V _R	T _A = 25 °C	I _R	-	5.0	μA
		T _A = 125 °C		120		
Typical junction capacitance per diode	4.0 V, 1 MHz	C _J	125	-	pF	

Note

⁽¹⁾ Pulse test: 300 μs pulse width, 1 % duty cycle

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)				
PARAMETER	SYMBOL	BU25H06	BU25H08	UNIT
Typical thermal resistance	R _{θJC} ⁽¹⁾	2.5		°C/W
	R _{θJA} ⁽²⁾	24		

Notes

⁽¹⁾ With 60 W air cooled heatsink

⁽²⁾ Without heatsink, free air

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
BU25H06-E3/P	4.84	P	20	Tube
BU25H06-E3/A	4.84	A	250	Paper tray

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified)

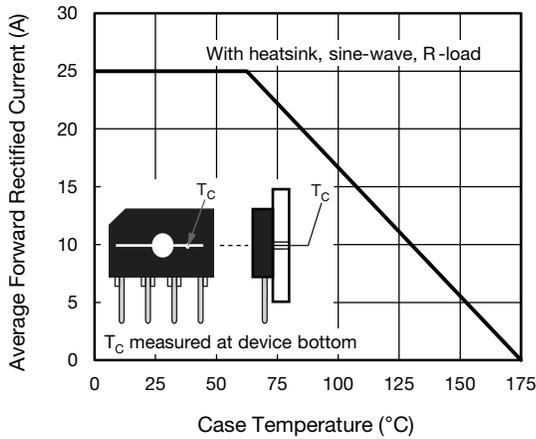


Fig. 1 - Derating Curve Output Rectified Current

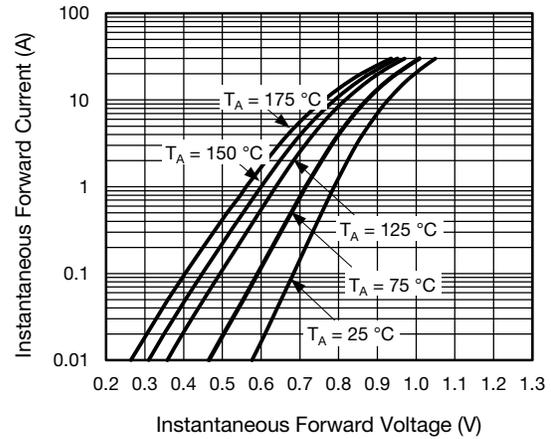


Fig. 4 - Typical Forward Characteristics Per Diode

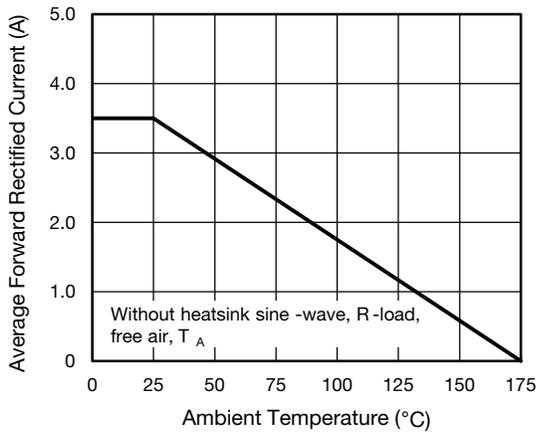


Fig. 2 - Forward Current Derating Curve

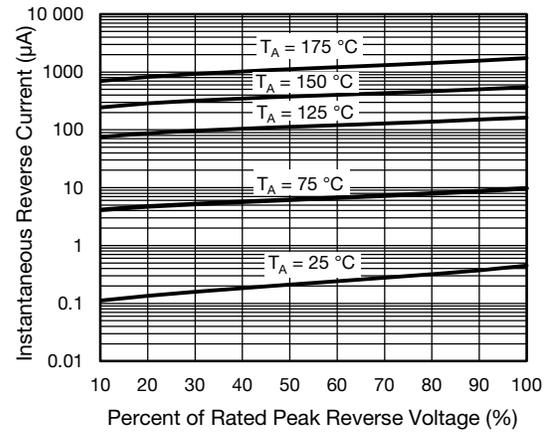


Fig. 5 - Typical Reverse Characteristics Per Diode

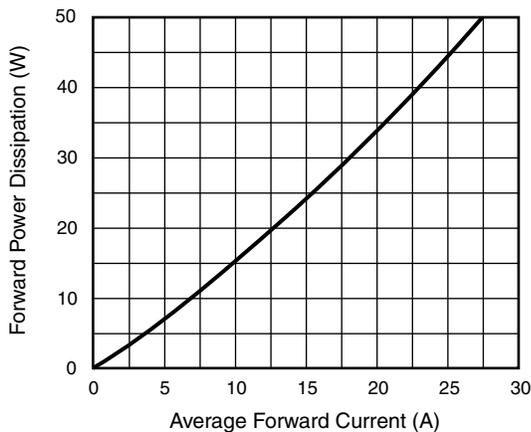


Fig. 3 - Forward Power Dissipation

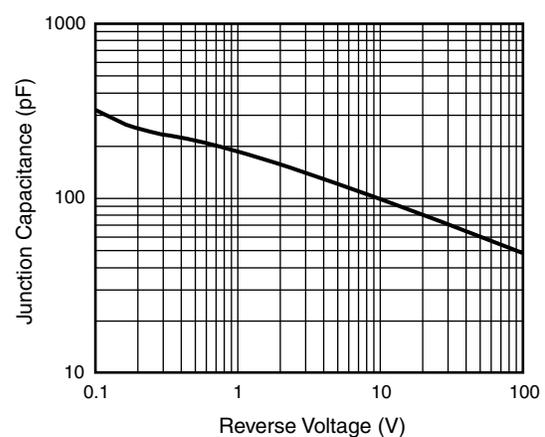
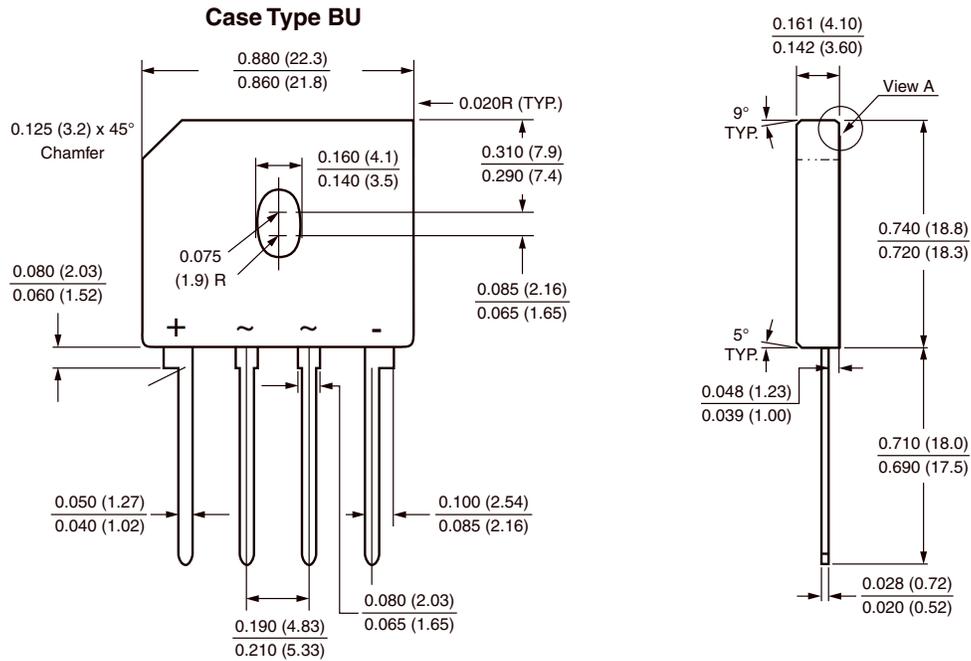


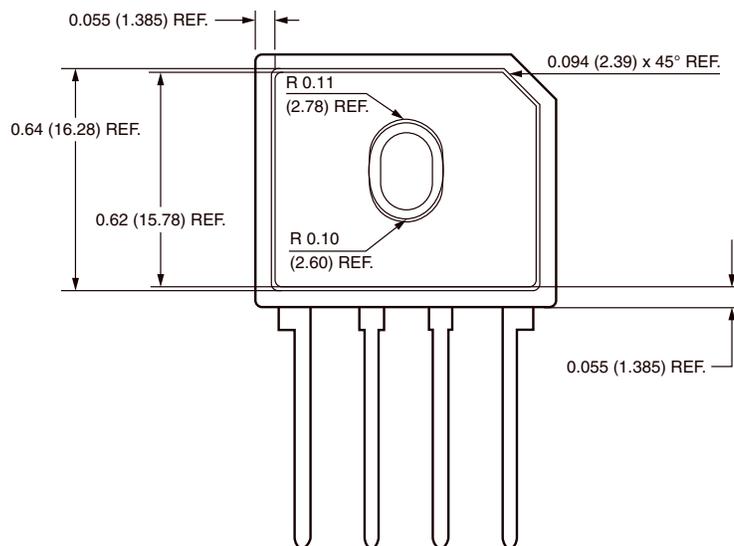
Fig. 6 - Typical Junction Capacitance Per Diode



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Polarity shown on front side of case, positive lead beveled corner





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