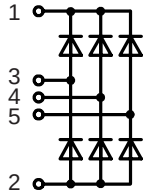
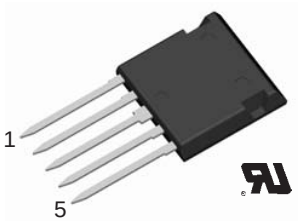
Schottky Three Phase Rectifier Bridge

in ISOPLUS i4-PAC™

V_{RRM} = 45 V
$I_{D(AV)M}$ = 45 A





Rectifier Bridge

Symbol	Conditions		Maximum Ratings	
V_{RRM}			45	V
I_{FAV}	T_C = 90°C; sine 180°	(per diode)	20	A
$I_{D(AV)M}$	T_C = 90°C	(bridge)	45	A
I_{FSM}	T_{VJ} = 25°C; t = 10 ms; sine 50 Hz		150	A
P_{tot}	T_C = 25°C	(per diode)	40	W

Symbol	Conditions	Characteristic Values (T_{VJ} = 25°C, unless otherwise specified) min.	typ.	max.	
V_F	I_F = 15 A; T_{VJ} = 25°C		0.55	0.65	V
	T_{VJ} = 125°C		0.5		V
I_R	$V_R = V_{RRM}$; T_{VJ} = 25°C			5	mA
	T_{VJ} = 125°C		100		mA
C_J	V_R = 20 V		200		pF
R_{thJC}	(per diode)			3.1	K/W

Data according to IEC 60747 and refer to a single diode unless otherwise stated.

Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}		-55...+150	°C
T_{stg}		-55...+125	°C
V_{ISOL}	$I_{ISOL} \leq$ 1 mA; 50/60 Hz	2500	V~
F_C	mounting force with clip	20...120	N

Symbol	Conditions	Characteristic Values min.	typ.	max.	
C_P	coupling capacity between shorted pins and mounting tab in the case		40		pF
R_{thCH}	with heatsink compound		0.15		K/W
d_S,d_A	pin - pin	1.7			mm
d_S,d_A	pin - backside metal	5.5			mm
Weight			9		g

IXYS reserves the right to change limits, test conditions and dimensions.

Features

- Schottky diodes
  - very low forward voltage
  - extremely fast switching
- ISOPLUS i4-PAC™ package
  - isolated back surface
  - low coupling capacity between pins and heatsink
  - enlarged creepage towards heatsink
  - application friendly pinout
  - high reliability
  - industry standard outline
  - UL registered E 72873

Applications

- high frequency rectifiers in
  - automotive drives and converters
  - hand held tools
  - low voltage power supplies
  - battery chargers
  - solar converters

Dimensions in mm (1 mm = 0.0394")