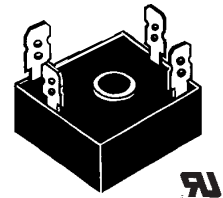
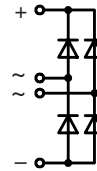


Single Phase Rectifier Bridge

$I_{dAVM} = 30\text{ A}$
 $V_{RRM} = 800-1800\text{ V}$

V_{RSM} V	V_{RRM} V	Type
800	800	VBO 36-08NO8
1200	1200	VBO 36-12NO8
1400	1400	VBO 36-14NO8
1600	1600	VBO 36-16NO8
1800	1800	VBO 36-18NO8



Symbol	Conditions	Maximum Ratings	
I_{dAV}	$T_C = 85^\circ\text{C}$, module	23	A
I_{dAVM}	$T_C = 62^\circ\text{C}$, module	30	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	550 A
		$t = 8.3\text{ ms}$ (60 Hz), sine	600 A
I^2t	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	500 A
		$t = 8.3\text{ ms}$ (60 Hz), sine	550 A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	1520 A ² s
		$t = 8.3\text{ ms}$ (60 Hz), sine	1520 A ² s
I^2t	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10\text{ ms}$ (50 Hz), sine	1250 A ² s
		$t = 8.3\text{ ms}$ (60 Hz), sine	1250 A ² s
T_{VJ}		-40...+150	$^\circ\text{C}$
T_{VJM}		150	$^\circ\text{C}$
T_{stg}		-40...+150	$^\circ\text{C}$
V_{ISOL}	50/60 Hz, RMS $I_{ISOL} \leq 1\text{ mA}$	$t = 1\text{ min}$	2500 V~
		$t = 1\text{ s}$	3000 V~
M_d	Mounting torque (M5) (10-32 UNF)		$2 \pm 10\%$ Nm
			$18 \pm 10\%$ lb.in.
Weight	typ.		22 g

Features

- Package with ¼" fast-on terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL registered E 72873

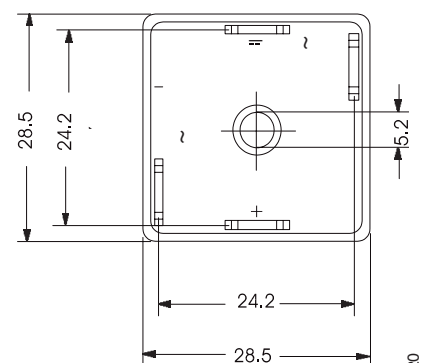
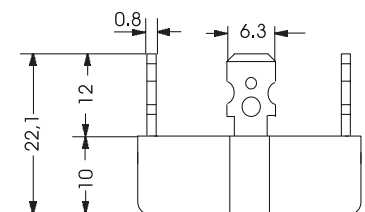
Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with one screw
- Space and weight savings
- Improved temperature and power cycling

Dimensions in mm (1 mm = 0.0394")



Symbol	Conditions	Characteristic Values	
I_R	$T_{VJ} = 25^\circ\text{C}$; $T_{VJ} = T_{VJM}$	$V_R = V_{RRM}$	$\leq 0.3\text{ mA}$
		$V_R = V_{RRM}$	$\leq 2.0\text{ mA}$
V_F	$I_F = 150\text{ A}$; $T_{VJ} = 25^\circ\text{C}$		$\leq 1.7\text{ V}$
V_{T0}	For power-loss calculations only		0.8 V
r_T			5.8 mΩ
R_{thJC}	per diode; DC current per module		6.2 KW
			1.55 KW
R_{thJK}	per diode; DC current per module		7.4 KW
			1.85 KW
d_S	Creeping distance on surface	12.7	mm
d_A	Creepage distance in air	9.4	mm
a	Max. allowable acceleration	50	m/s ²

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

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

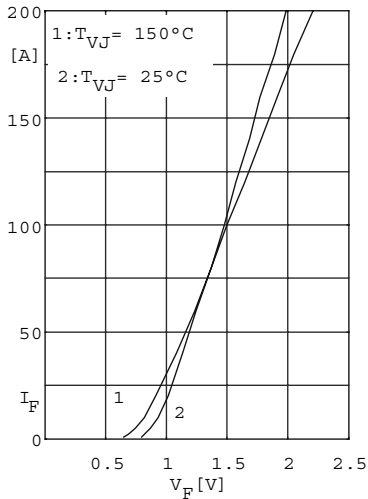


Fig. 1 Forward current versus voltage drop per diode

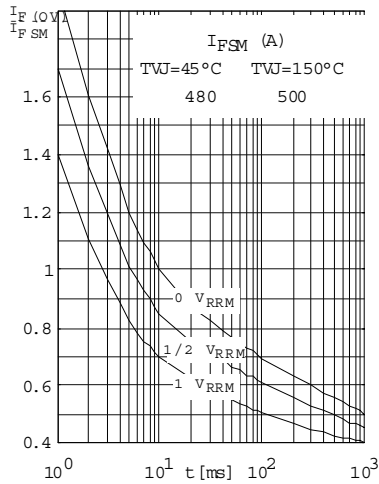


Fig. 2 Surge overload current per diode I_{FSM} : Crest value. t : duration

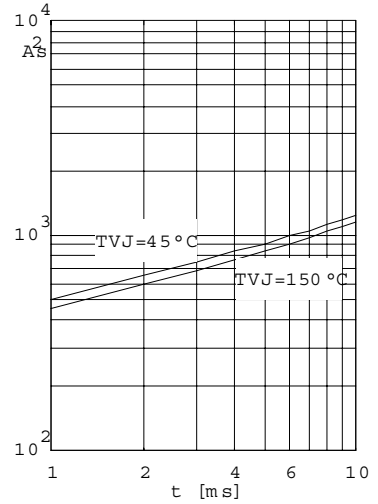


Fig. 3 $\int i^2 dt$ versus time (1-10ms) per diode or thyristor

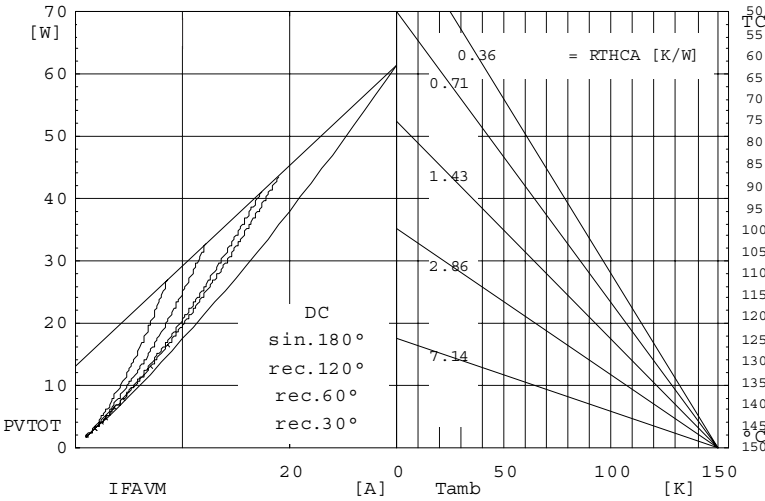


Fig. 4 Power dissipation versus direct output current and ambient temperature

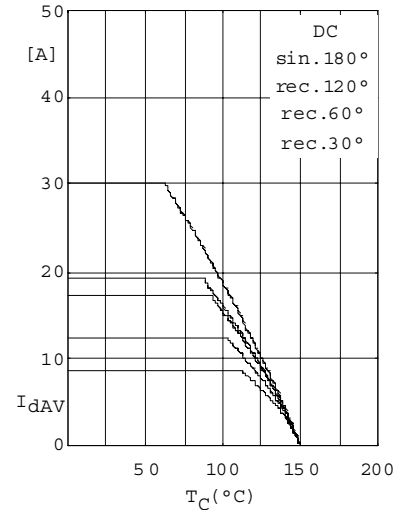


Fig.5 Maximum forward current at case temperature

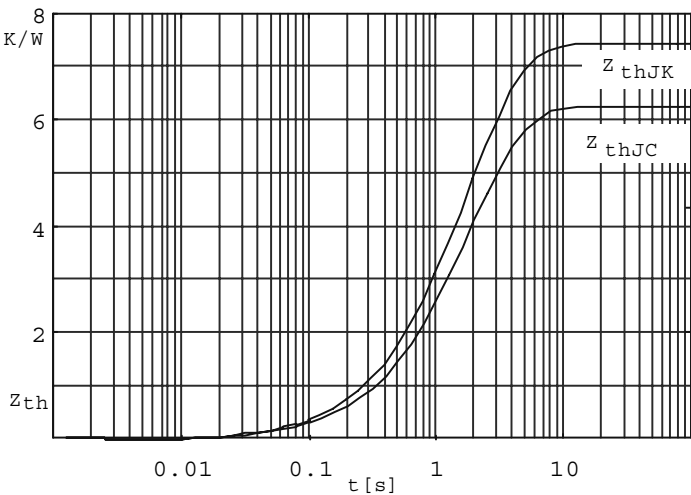


Fig. 6 Transient thermal impedance per diode or thyristor, calculated