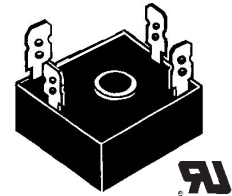
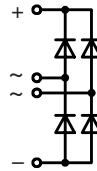


Single Phase Rectifier Bridge

$$I_{dAVM} = 30 \text{ A}$$

$$V_{RRM} = 1200-1800 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type
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°C, module		23	A
I _{dAVM}	T _C = 62°C, module		30	A
I _{FSM}	T _{VJ} = 45°C; V _R = 0	t = 10 ms (50 Hz), sine	550	A
		t = 8.3 ms (60 Hz), sine	600	A
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	500	A
		t = 8.3 ms (60 Hz), sine	550	A
I ² t	T _{VJ} = 45°C V _R = 0	t = 10 ms (50 Hz), sine	1520	A ² s
		t = 8.3 ms (60 Hz), sine	1520	A ² s
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	1250	A ² s
		t = 8.3 ms (60 Hz), sine	1250	A ² s
T _{VJ}			-40...+150	°C
T _{VJM}			150	°C
T _{stg}			-40...+150	°C
V _{ISOL}	50/60 Hz, RMS	t = 1 min	2500	V~
	I _{ISOL} ≤ 1 mA	t = 1 s	3000	V~
M _d	Mounting torque (M5) (10-32 UNF)		2 ±10%	Nm
			18 ±10%	lb.in.
Weight	typ.		22	g

Features

- Package with 1/4" fast-on terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL registered E 72873

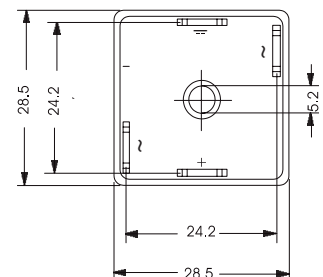
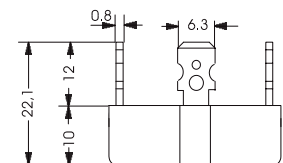
Applications

- 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	$T_{VJ} = 25^{\circ}\text{C};$	$V_R = V_{RRM}$	$\leq$	0.3	mA
	$T_{VJ} = T_{VJM};$	$V_R = V_{RRM}$	$\leq$	2.0	mA
V_F	$I_F = 150\text{ A};$	$T_{VJ} = 25^{\circ}\text{C}$	$\leq$	1.7	V
V_{T0}	For power-loss calculations only			0.8	V
r_T				5.8	mΩ
R_{thJC}	per diode; DC current			6.2	K/W
	per module			1.55	K/W
R_{thJK}	per diode; DC current			7.4	K/W
	per module			1.85	K/W
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.

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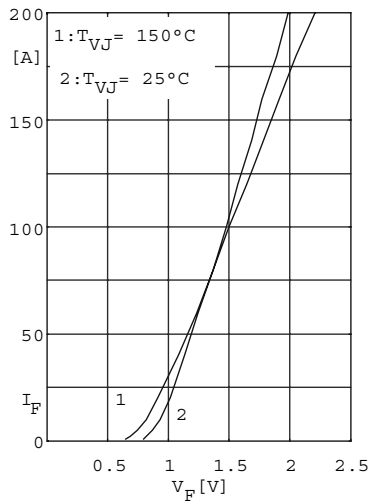


Fig. 1 Forward current versus voltage drop per diode

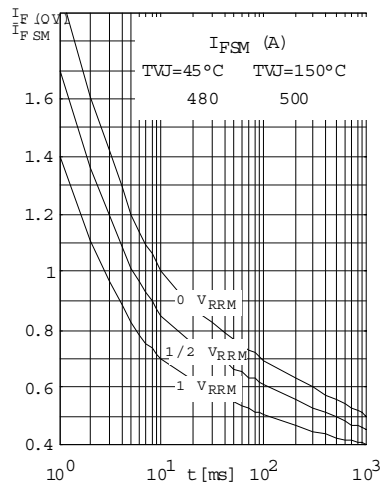


Fig. 2 Surge overload current per diode
 I_{FSM} : Crest value. t : duration

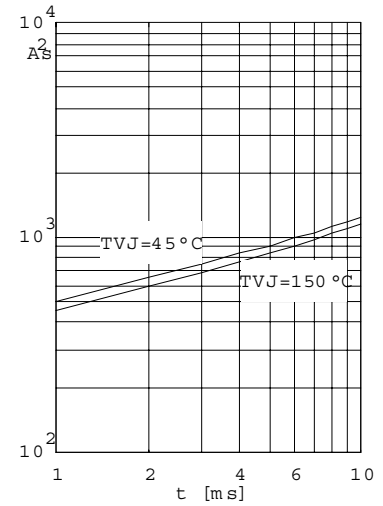


Fig. 3 $\int i^2 dt$ versus time
(1-10ms) per diode or thyristor

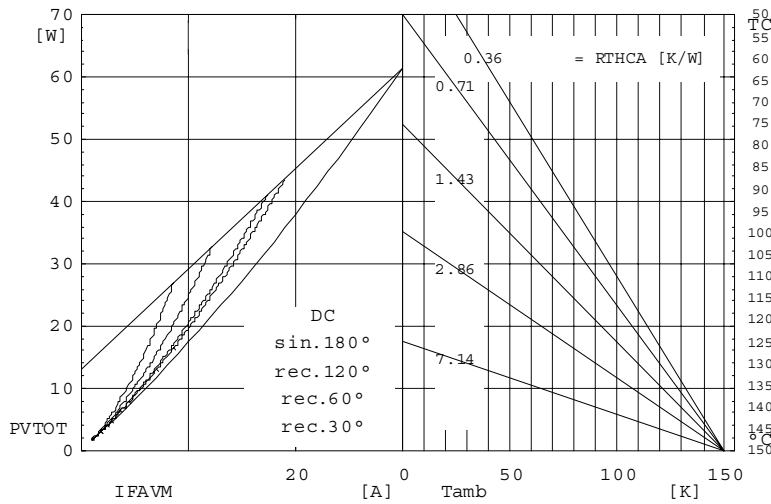


Fig. 4 Power dissipation versus direct output current and ambient temperature

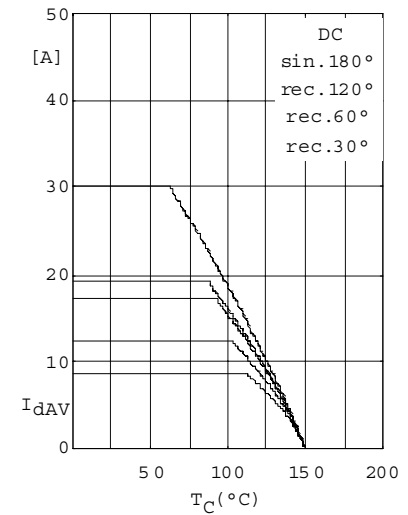


Fig. 5 Maximum forward current at case temperature

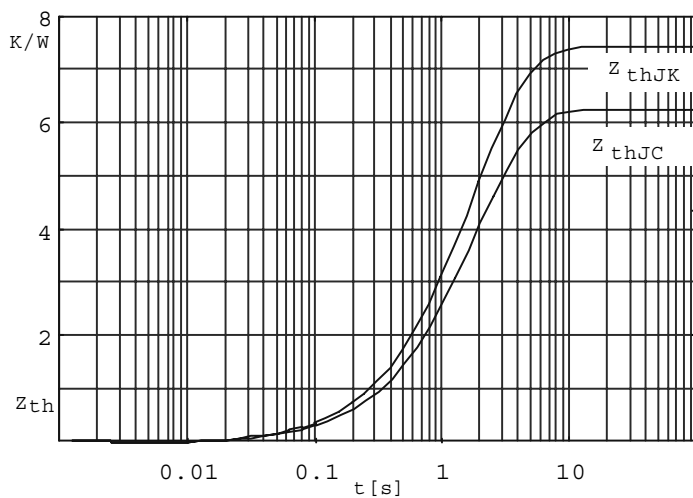


Fig. 6 Transient thermal impedance per diode or thyristor, calculated