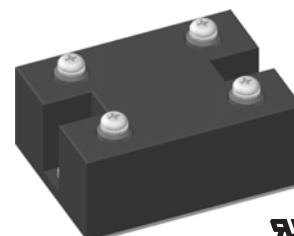
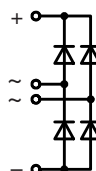


Single Phase Rectifier Bridge

$$\begin{aligned} I_{dAVM} &= 124 \text{ A} \\ V_{BRM} &= 800\text{-}1600 \text{ V} \end{aligned}$$

V_{RSM}	V_{RRM}	Type
V	V	
900	800	VBO 125-08NO7
1300	1200	VBO 125-12NO7
1700	1600	VBO 125-16NO7



Symbol	Conditions		Maximum Ratings	
I _{dAVM}	T _C = 85°C, module		124	A
I _{FSM}	T _{VJ} = 45°C; V _R = 0	t = 10 ms (50 Hz), sine	1800	A
		t = 8.3 ms (60 Hz), sine	1950	A
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	1600	A
		t = 8.3 ms (60 Hz), sine	1800	A
I ² t	T _{VJ} = 45°C V _R = 0	t = 10 ms (50 Hz), sine	16200	A ² s
		t = 8.3 ms (60 Hz), sine	16000	A ² s
	T _{VJ} = T _{VJM} V _R = 0	t = 10 ms (50 Hz), sine	12800	A ² s
		t = 8.3 ms (60 Hz), sine	13600	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)		5 ±15%	Nm
			44 ±15%	lb.in.
	Terminal connection torque (M5)		5 ±15%	Nm
			44 ±15%	lb.in.
Weight	typ.		225	g

Features

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

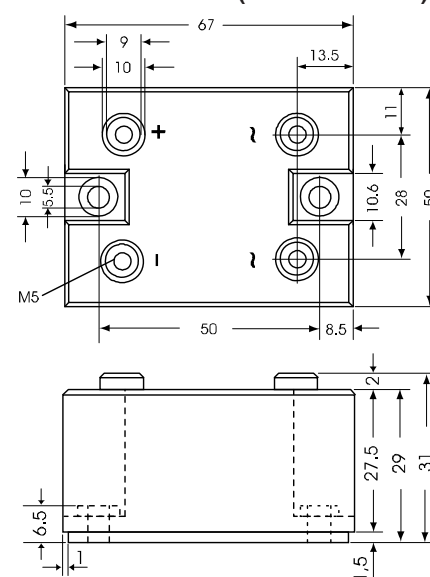
Applications

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

Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling

Dimensions in mm (1 mm = 0.0394")



Symbol	Conditions	Characteristic Values
I_R	$V_R = V_{RRM};$ $T_{VJ} = 25^{\circ}\text{C}$	≤ 0.3 mA
	$V_R = V_{RRM};$ $T_{VJ} = T_{VJM}$	≤ 8.0 mA
V_F	$I_F = 150$ A; $T_{VJ} = 25^{\circ}\text{C}$	≤ 1.3 V
V_{T0}	For power-loss calculations only	0.8 V
r_T	$T_{VJ} = T_{VJM}$	3 m Ω
R_{thJC}	per diode; 180°	0.83 K/W
	per module; 180°	0.138 K/W
R_{thJK}	per diode; 180°	1.13 K/W
	per module; 180°	0.188 K/W

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

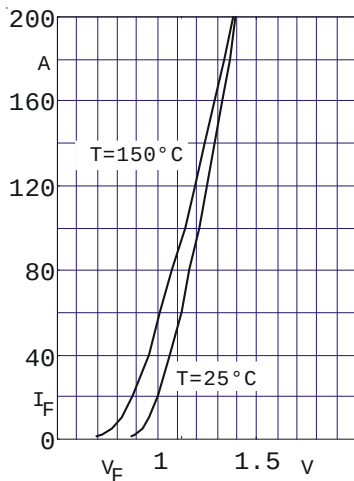


Fig. 1 Forward current versus voltage drop per diode

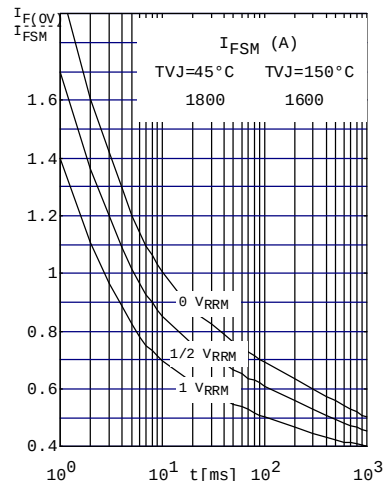


Fig. 2 Surge overload current per diode I_{FSM} : Crest value. t : duration

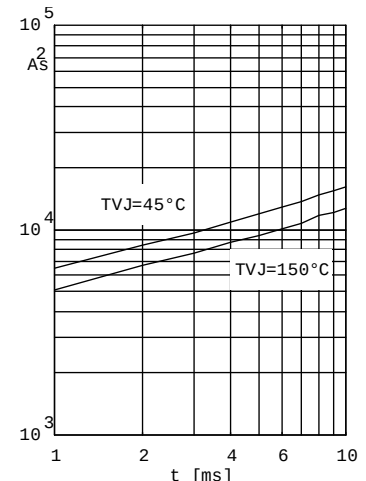


Fig. 3 I^2dt versus time (1-10ms) per diode or thyristor

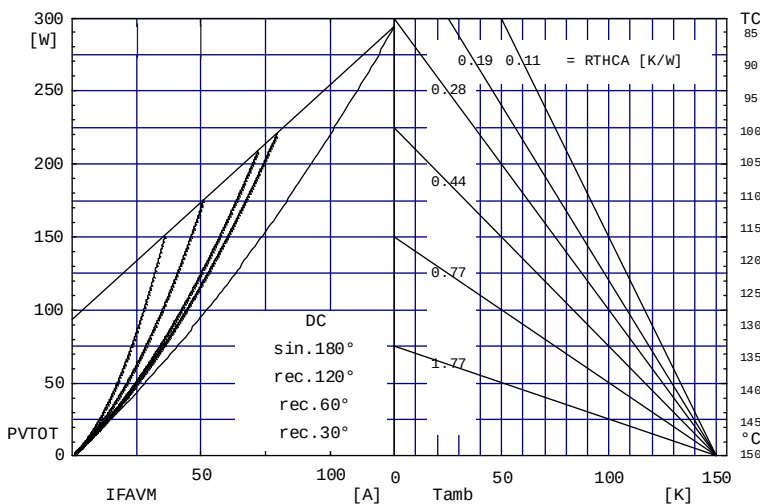


Fig. 4 Power dissipation versus direct output current and ambient temperature

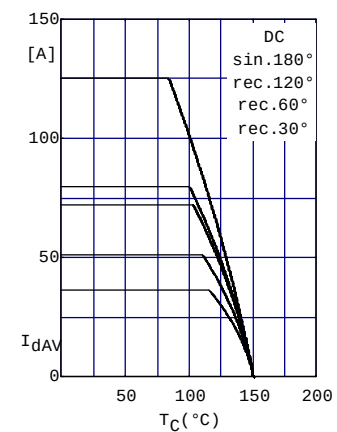


Fig.5 Maximum forward current at case temperature

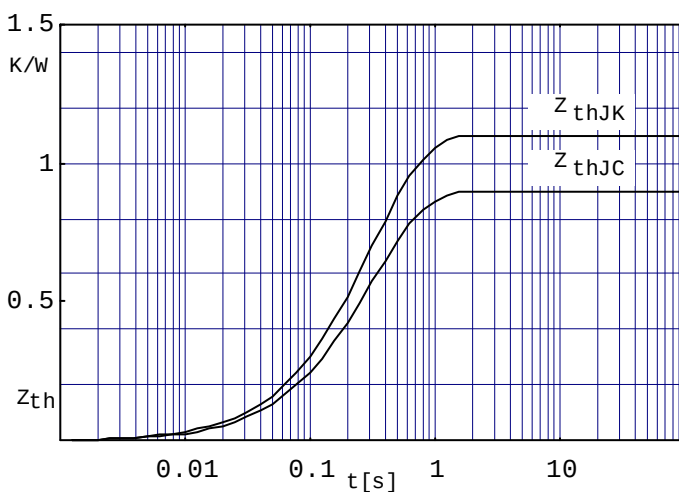


Fig. 6 Transient thermal impedance per diode/thyristor, calculated