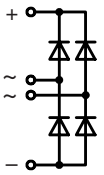
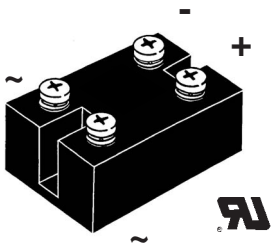
Single Phase Rectifier Bridge

I_{dAVM} = 107 A
V_{RRM} = 1200-1800 V

V_{RSM} V	V_{RRM} V	Type
900	800	VBO 105-08NO7
1200	1200	VBO 105-12NO7
1400	1400	VBO 105-14NO7
1600	1600	VBO 105-16NO7
1800	1800	VBO 105-18NO7*

* delivery time on request





Symbol	Conditions		Maximum Ratings	
I_{dAVM}	T_C = 85°C, module		107	A
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	1500	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	1650	A
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	1350	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	1500	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	11250	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	11300	A^2s
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	9120	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	9350	A^2s
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~
	$I_{ISOL} \leq$ 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

Symbol	Conditions		Characteristic Values		
I_R	$V_R = V_{RRM}$;	T_{VJ} = 25°C	≤	0.3	mA
	$V_R = V_{RRM}$;	$T_{VJ} = T_{VJM}$	≤	8.0	mA
V_F	I_F = 150 A;	T_{VJ} = 25°C	≤	1.6	V
V_{T0}	For power-loss calculations only			0.8	V
r_T	$T_{VJ} = T_{VJM}$			5	mΩ
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.

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

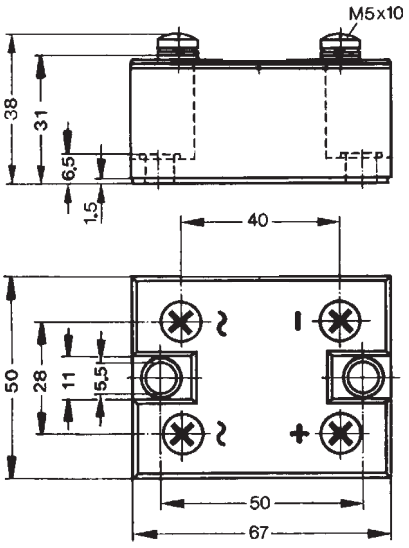
Applications

- 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")



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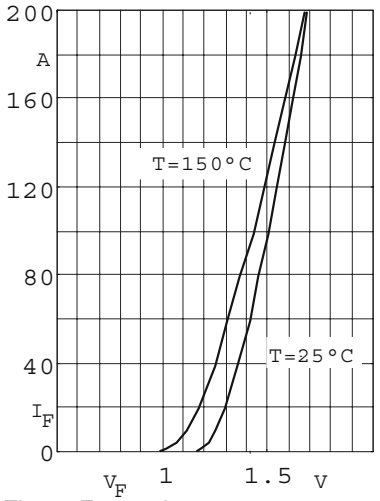


Fig. 1 Forward current versus voltage drop per diode

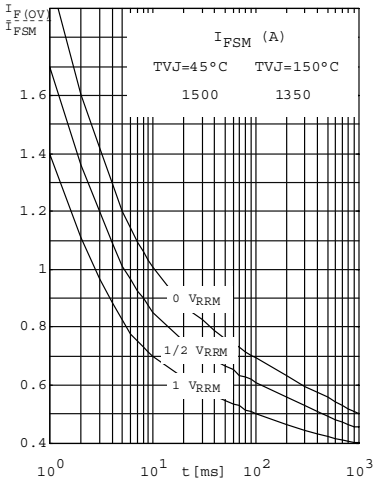


Fig. 2 Surge overload current per diode I_{FSM}: Crest value. t: duration

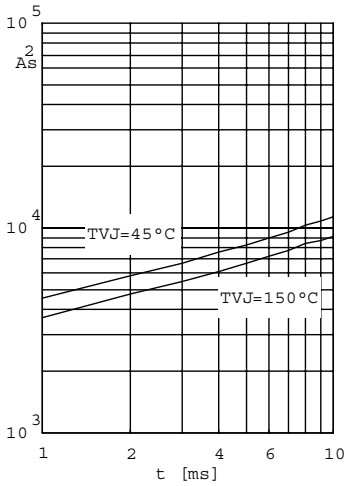


Fig. 3 $\int i^2dt$ versus time (1-10ms) per diode or thyristor

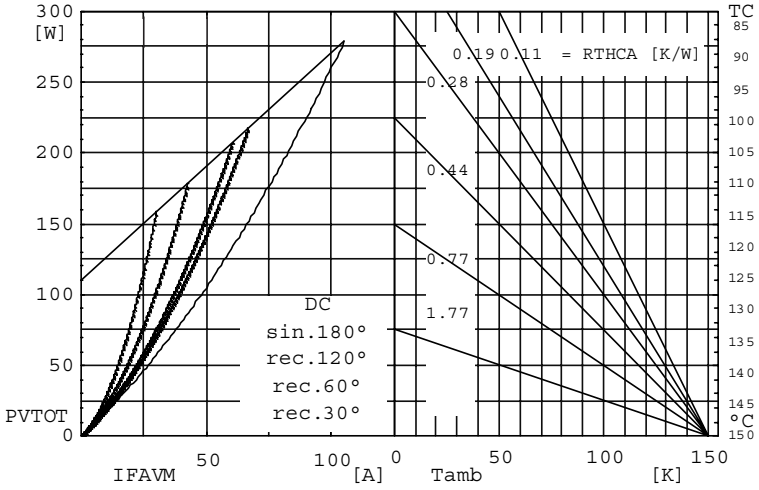


Fig. 4 Power dissipation versus direct output current and ambient temperature

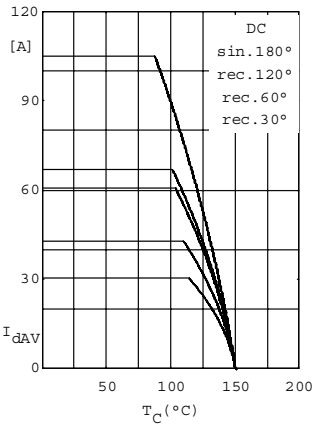


Fig.5 Maximum forward current at case temperature

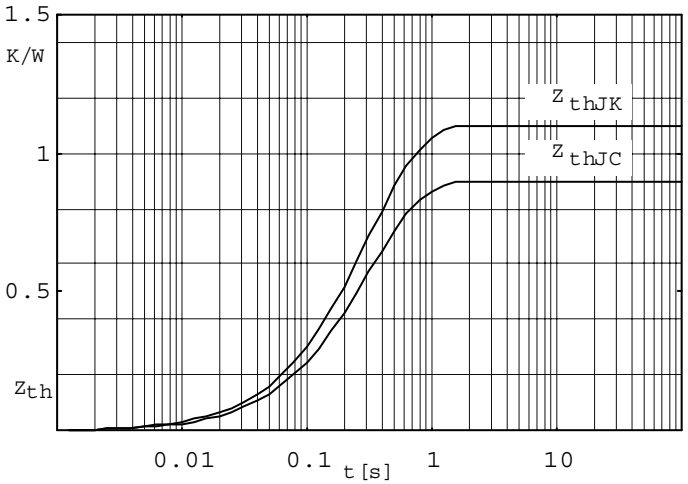


Fig. 6 Transient thermal impedance per diode or thyristor, calculated

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