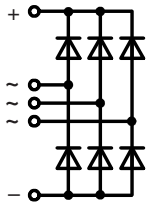
Three Phase Rectifier Bridge

I_{dAV} = 63/88 A
V_{RRM} = 800-1800 V

V_{RRM} V	V_{RSM} V	Type	
800	900	VUO 62-08NO7	VUO 82-08NO7
1200	1300	VUO 62-12NO7	VUO 82-12NO7
1400	1500	VUO 62-14NO7	VUO 82-14NO7
1600	1700	VUO 62-16NO7	VUO 82-16NO7
1800	1900	VUO 62-18NO7*	VUO 82-18NO7*

* delivery time on request



Symbol	Conditions		Maximum Ratings VUO 62	VUO 82	
I_{dAV}	T_C = 110°C; module		63	88	A
I_{dAV}	T_A = 45°C (R_{thCA} = 0.6 K/W); module		48	57	A
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz); sine	550	750	A
	V_R = 0 V;	t = 8.3 ms (60 Hz); sine	600	820	A
	T_{VJ} = T_{VJM};	t = 10 ms (50 Hz); sine	500	670	A
	V_R = 0 V;	t = 8.3 ms (60 Hz); sine	550	740	A
I^2t	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	1520	2800	A^2s
	V_R = 0 V;	t = 8.3 ms (60 Hz), sine	1520	2800	A^2s
	T_{VJ} = T_{VJM};	t = 10 ms (50 Hz), sine	1250	2250	A^2s
	V_R = 0 V;	t = 8.3 ms (60 Hz), sine	1250	2250	A^2s
T_{VJ}			-40...+150		°C
T_{VJM}			150		°C
T_{stg}			-40...+125		°C
V_{ISOL}	50/60Hz RMS;	t = 1 min	2500		V~
	$I_{ISOL} \leq$ 1 mA;	t = 1 s	3000		V~
M_d	Mounting torque (M5)		5 ±15%		Nm
	Terminal connection torque (M5)		5 ±15%		Nm
Weight	typ.		160		g

Symbol	Conditions	Characteristic Values VUO 62	VUO 82	
I_R	V_R = V_{RRM}; T_{VJ} = 25°C	≤ 0.3	0.3	mA
	V_R = V_{RRM}; T_{VJ} = T_{VJM}	≤ 5	5	mA
V_F	I_F = 150 A; T_{VJ} = 25°C	≤ 1.8	1.6	V
V_{T0}	For power-loss calculations only	0.8	0.8	V
r_T		8	5	mΩ
R_{thJC}	per diode	1.45	1.1	K/W
	per module	0.24	0.183	K/W
R_{thJH}	per diode	1.87	1.52	K/W
	per module	0.31	0.253	K/W
d_S	Creeping distance on surface	10		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.

Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL registered E72873

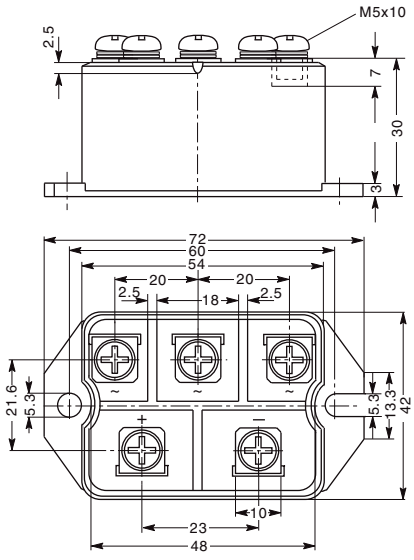
Applications

- 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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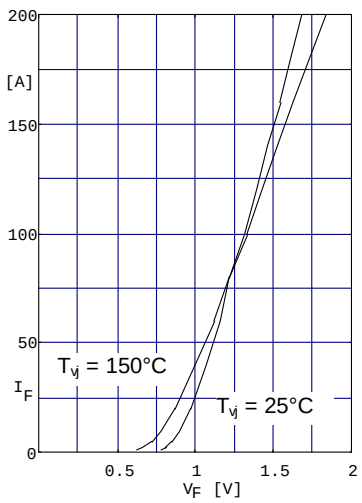


Fig. 1 Forward current versus voltage drop per diode

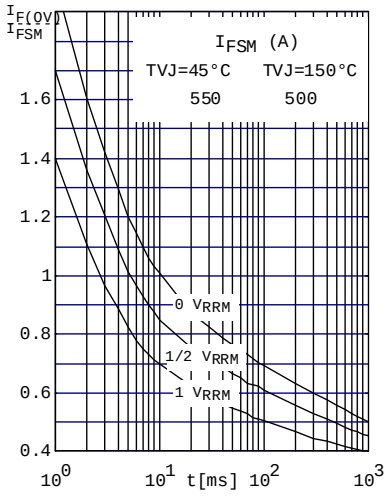


Fig. 2 Surge overload current per diode
I_{FSM}: Crest value. t: duration

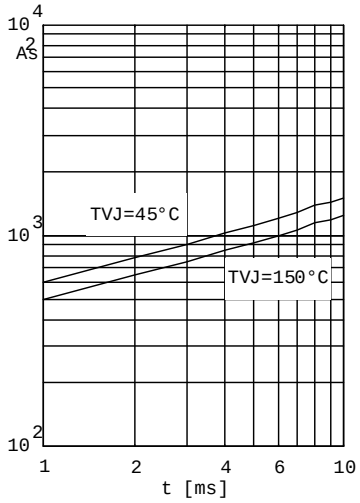


Fig. 3 $\int i^2dt$ versus time (1-10ms) per diode or thyristor

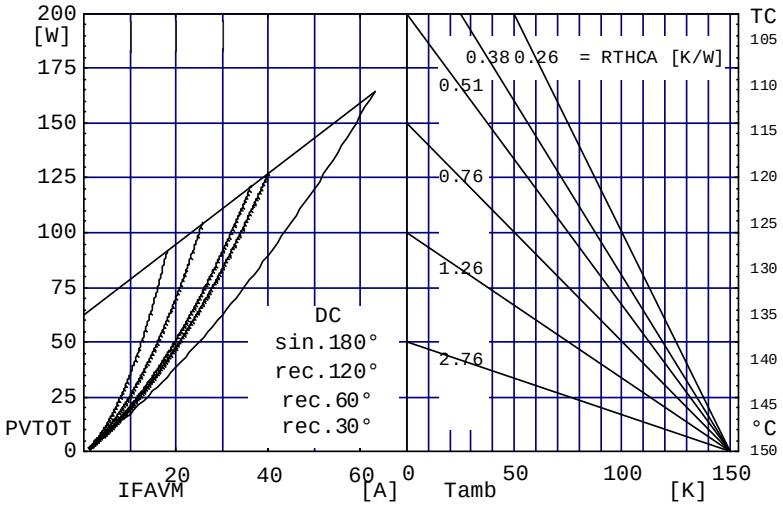


Fig. 4 Power dissipation versus direct output current and ambient temperature

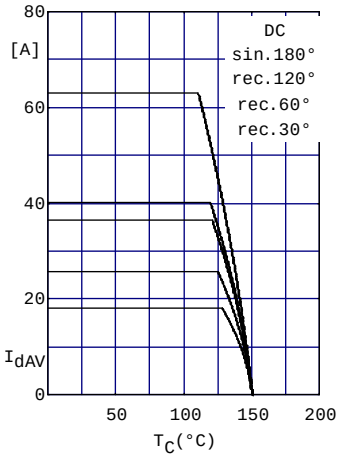


Fig.5 Maximum forward current at case temperature

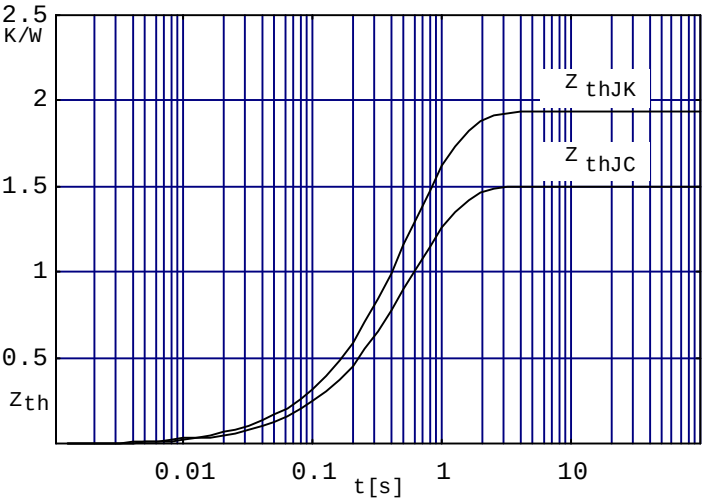
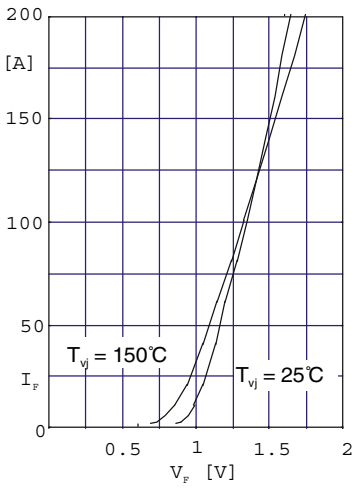


Fig. 6 Transient thermal impedance per diode or thyristor, calculated



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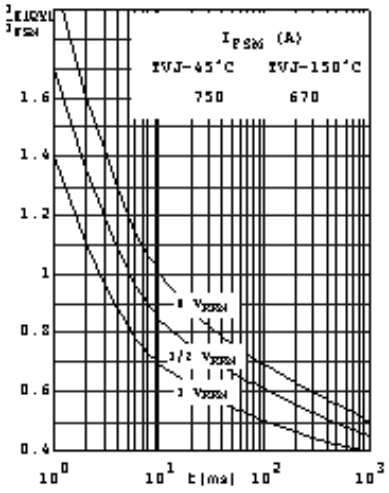

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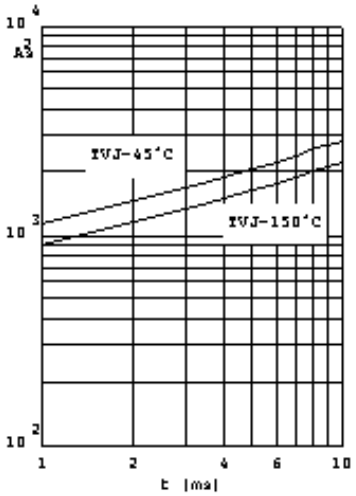
t: duration



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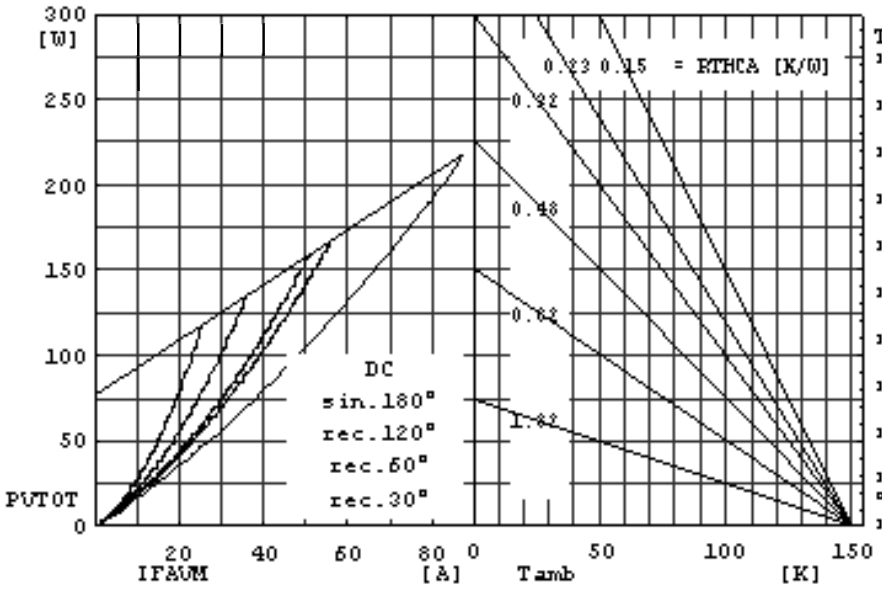

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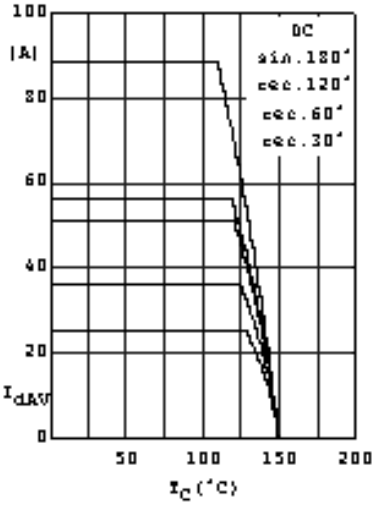

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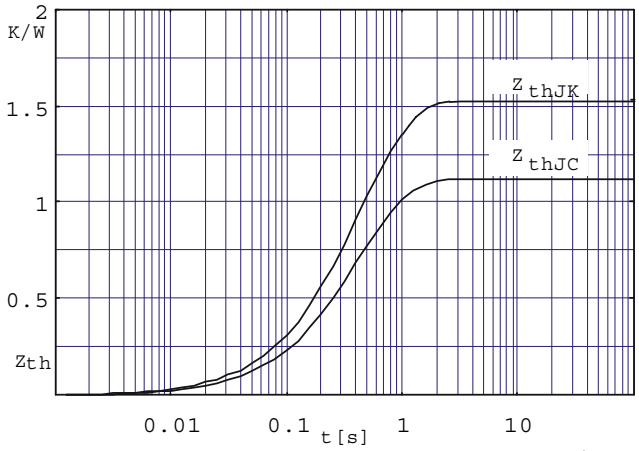

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