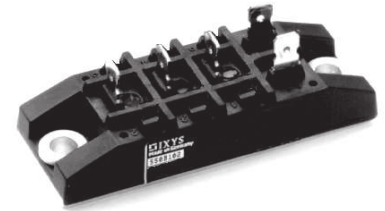
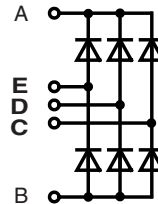


Three Phase Rectifier Bridge

$$I_{dAV} = 70 \text{ A}$$

$$V_{RRM} = 1600 \text{ V}$$

V_{RSM}	V_{RRM}	Types
V	V	
1700	1600	VUO 70-16NO7



Symbol	Conditions	Maximum Ratings
I_{dAV}	$T_C = 100^\circ\text{C}$, module (for resistive load at bridge output)	70 A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	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^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	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...+125 °C
V_{ISOL}	50/60 Hz, RMS $I_{ISOL} \leq 1 \text{ mA}$	t = 1 min 2500 V~ t = 1 s 3000 V~
	M_d	Mounting torque (M5) (10-32 UNF)
Weight	typ.	110 g

Features

- Package with copper base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- ¼" fast-on power terminals

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 capability
- Small and light weight

Symbol	Conditions	Characteristic Values
I_R	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	≤ 0.5 mA
	$V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$	≤ 10 mA
V_F	$I_F = 150 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$	≤ 1.7 V
V_{T0}	For power-loss calculations only	0.8 V
r_T		8 mΩ
R_{thJC}	per diode; DC current	1.45 K/W
	per module	0.242 K/W
R_{thJH}	per diode, DC current	1.9 K/W
	per module	0.317 K/W
d_S	Creeping distance on surface	16.1 mm
d_A	Creepage distance in air	7.5 mm
a	Max. allowable acceleration	50 m/s ²

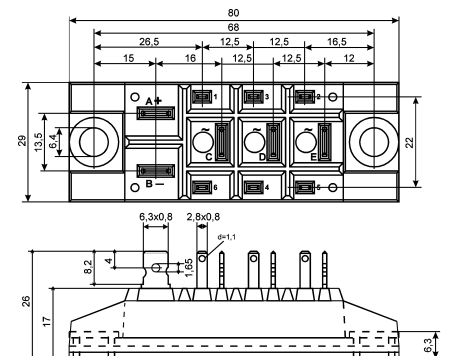
Data according to IEC 60747 refer to a single diode unless otherwise stated

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

Dimensions in mm (1 mm = 0.0394")



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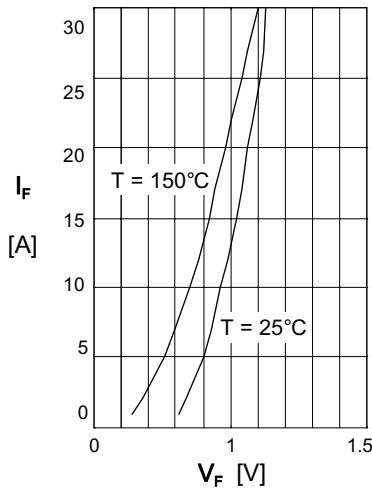


Fig. 1 Forward current vs. voltage drop per diode

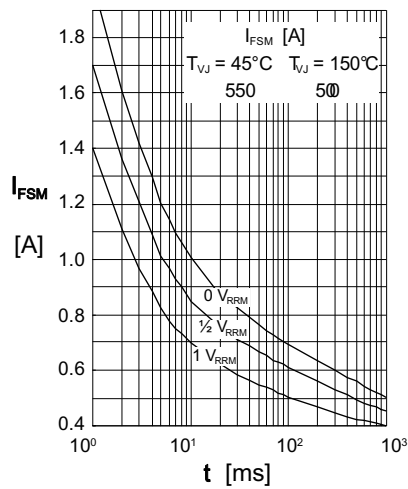


Fig. 2 Surge overload current per diode. t = duration
 I_{FSM} = Crest value

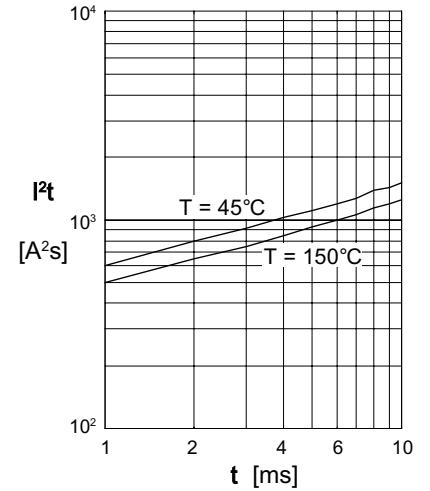


Fig. 3 I^2t vs. time (1-10 ms) per diode/thyristor

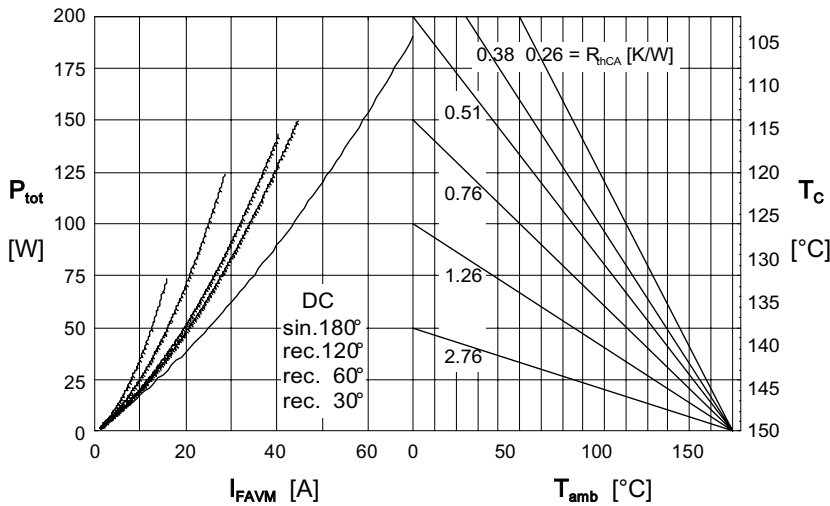


Fig. 4 Power dissipation versus direct output current and ambient temperature

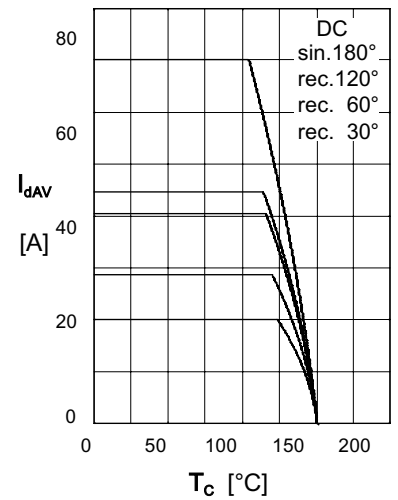


Fig. 5 Max. forward current at case temperature

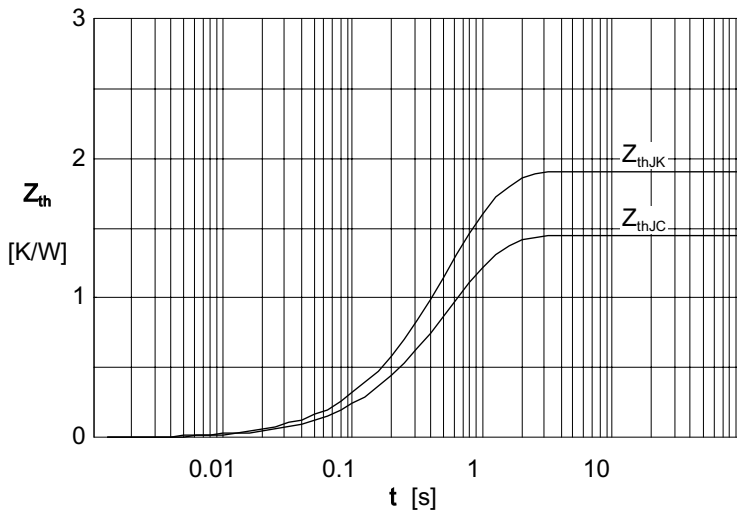


Fig. 6 Transient thermal impedance per diode/thyristor, calculated