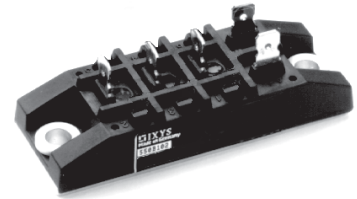
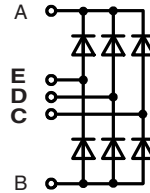


Three Phase Rectifier Bridge

$I_{dAV} = 70 \text{ A}$
 $V_{RRM} = 1600 \text{ V}$

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	70	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	550 A 600 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	500 A 550 A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	1520 A ² s 1520 A ² s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine t = 8.3 ms (60 Hz), sine	1250 A ² s 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)	5 ±15%	Nm
		44 ±15%	lb.in.
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

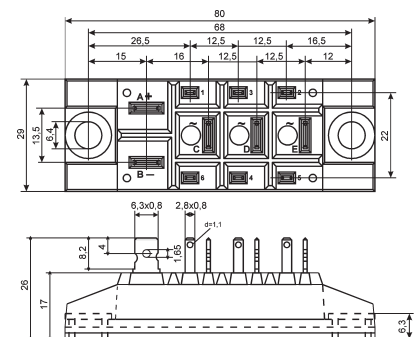
Advantages

- 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
 * for resistive load at bridge output

Dimensions in mm (1 mm = 0.0394")



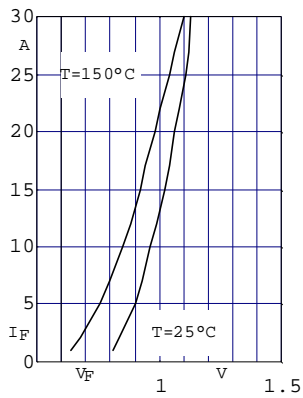


Fig. 1 Forward current versus voltage drop per diode

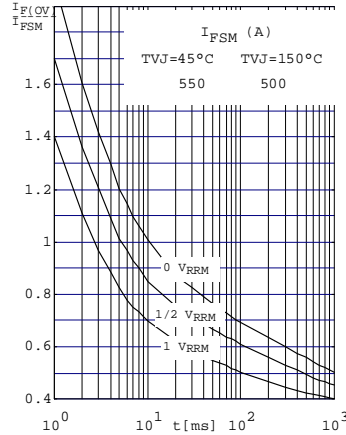


Fig. 2 Surge overload current per diode
 I_{FSM} : Crest value. t: duration

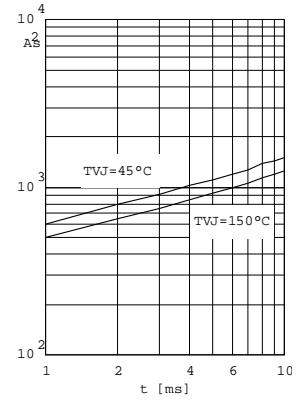


Fig. 3 I^2dt versus time (1-10ms) per diode or thyristor

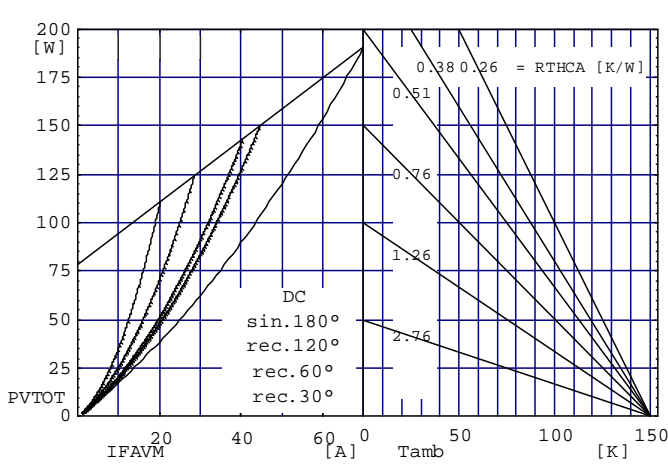


Fig. 4 Power dissipation versus direct output current and ambient temperature

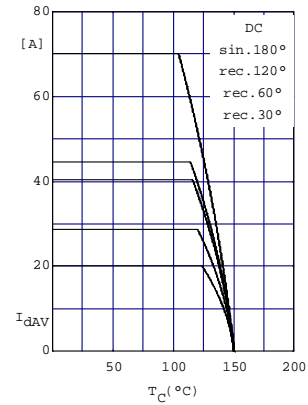


Fig. 5 Maximum forward current at case temperature

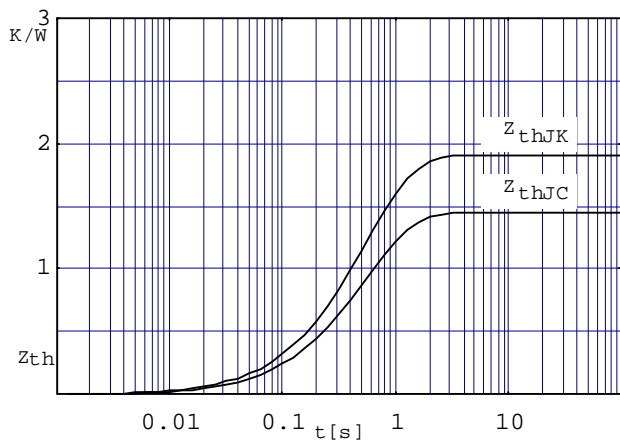


Fig. 6 Transient thermal impedance per diode/thyristor, calculated