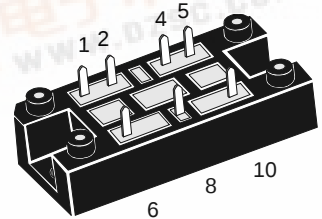
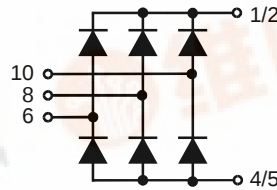


Three Phase Rectifier Bridge

$$I_{dAVM} = 82 \text{ A}$$

$$V_{RRM} = 800-1800 \text{ V}$$

V_{RSM} V	V_{RRM} V	Type
900	800	VUO 80-08NO1
1300	1200	VUO 80-12NO1
1500	1400	VUO 80-14NO1
1700	1600	VUO 80-16NO1
1900	1800	VUO 80-18NO1



Symbol	Test Conditions	Maximum Ratings
I_{dAV}	$T_K = 90^\circ\text{C}$, module	82 A
I_{dAVM}	module	82 A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 600 A $t = 8.3 \text{ ms}$ (60 Hz), sine 640 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 520 A $t = 8.3 \text{ ms}$ (60 Hz), sine 555 A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 1800 A ² s $t = 8.3 \text{ ms}$ (60 Hz), sine 1720 A ² s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	$t = 10 \text{ ms}$ (50 Hz), sine 1350 A ² s $t = 8.3 \text{ ms}$ (60 Hz), sine 1295 A ² s
T_{VJ}		-40...+150 °C
T_{VJM}		150 °C
T_{stg}		-40...+130 °C
V_{ISOL}	50/60 Hz, RMS $I_{ISOL} \leq 1 \text{ mA}$	$t = 1 \text{ min}$ 3000 V~ $t = 1 \text{ s}$ 3600 V~
M_d	Mounting torque (M5) (10-32UNF)	2 - 2.5 Nm 18-22 lb.in.
Weight	typ.	35 g

Features

- Package with DCB ceramic base plate
- Isolation voltage 3600 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- Leads suitable for PC board soldering
- UL registered E72873

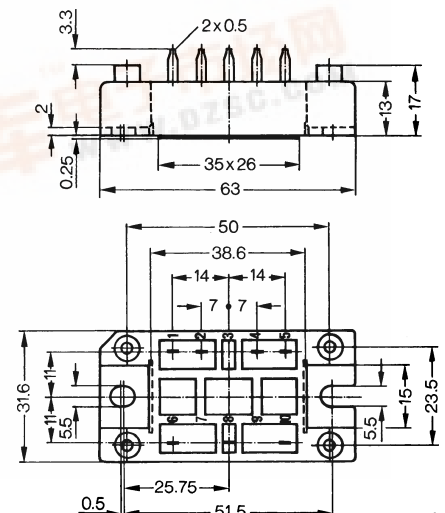
Applications

- 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")



Symbol	Test Conditions	Characteristic Values
I_R	$V_R = V_{RRM}$ $V_R = V_{RRM}$	$T_{VJ} = 25^\circ\text{C}$ ≤ 0.3 mA $T_{VJ} = T_{VJM}$ ≤ 6 mA
V_F	$I_F = 80 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$	≤ 1.5 V
V_{T0}	For power-loss calculations only	0.8 V
r_T		7.5 mΩ
R_{thJH}	per diode, 120° rect. per module, 120° rect.	1.42 K/W 0.24 K/W
d_s	Creeping distance on surface	12.7 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.

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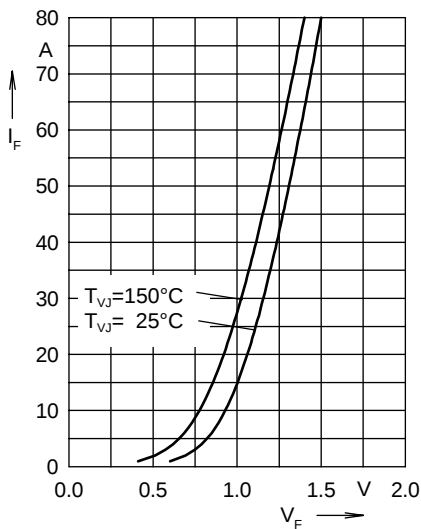


Fig. 1 Forward current versus voltage drop per diode

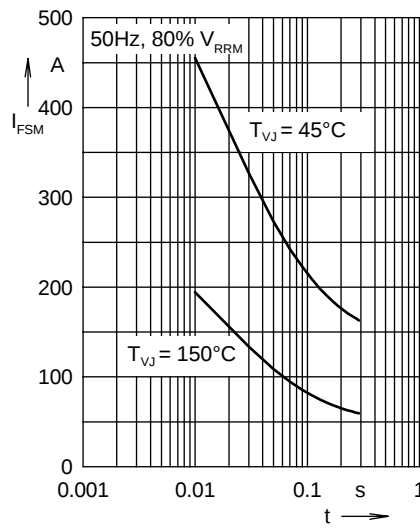


Fig. 2 Surge overload current

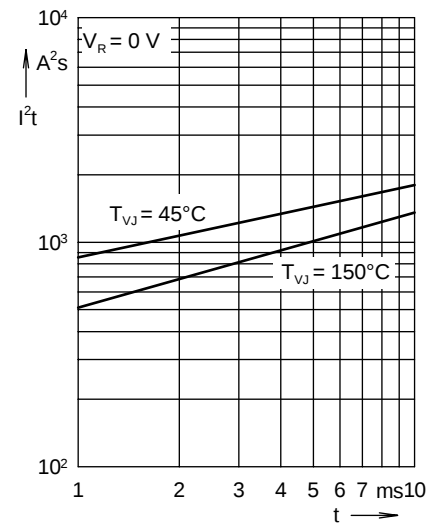


Fig. 3 I^2t versus time per diode

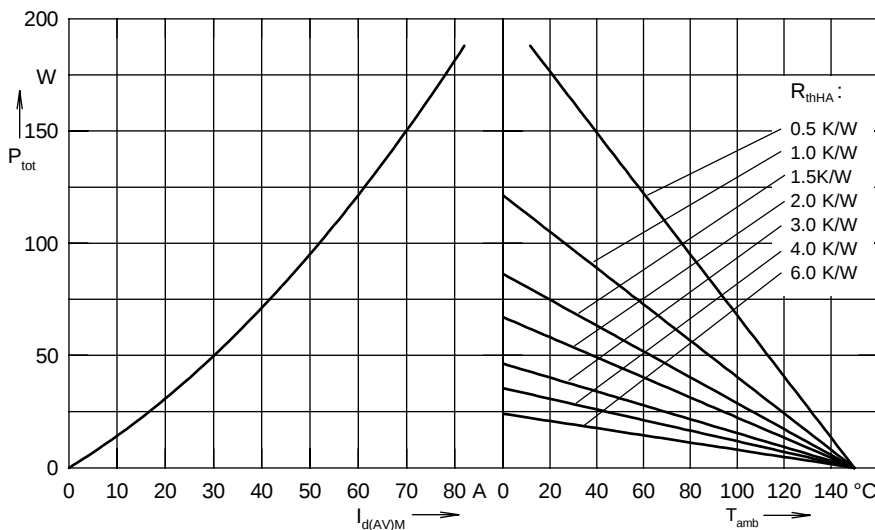


Fig. 4 Power dissipation versus direct output current and ambient temperature

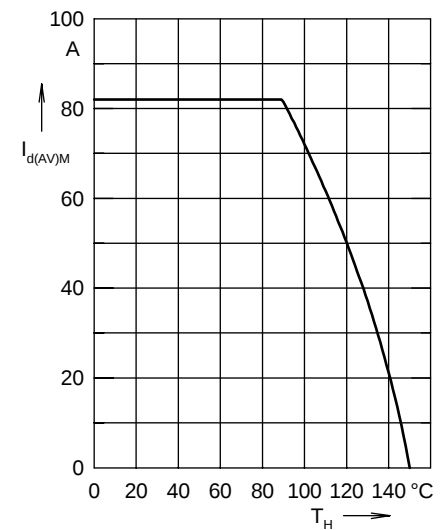


Fig. 5 Max. forward current versus heatsink temperature

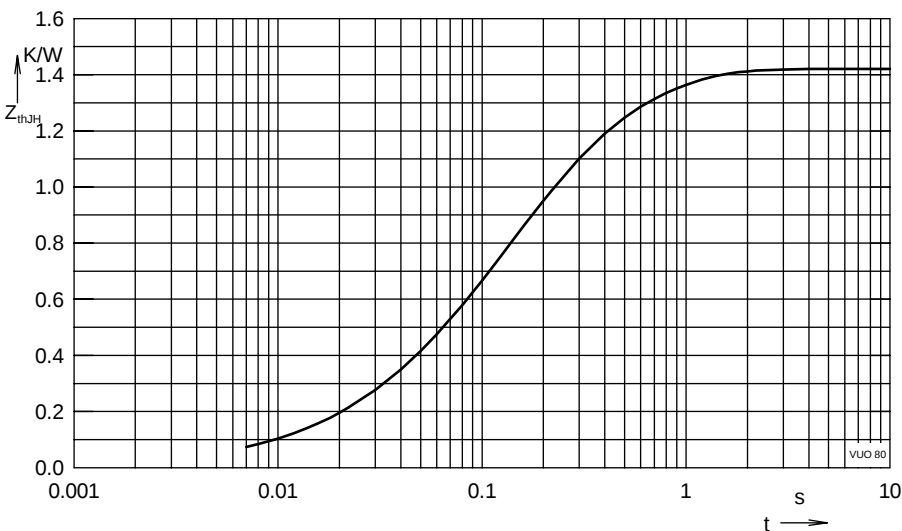


Fig. 6 Transient thermal impedance junction to heatsink

Constants for Z_{thJH} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.005	0.01
2	0.21	0.05
3	0.795	0.14
4	0.41	0.5