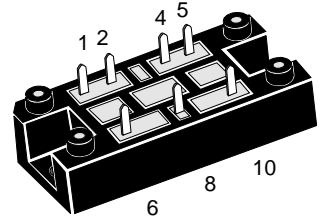
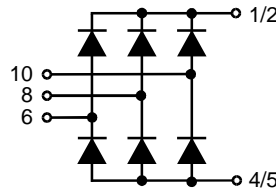


Three Phase Rectifier Bridge

$I_{dAVM} = 20\text{ A}$
 $V_{RRM} = 800\text{-}1800\text{ V}$

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



Symbol	Test Conditions	Maximum Ratings	
I_{dAV}	$T_K = 90^\circ\text{C}$, module	15	A
I_{dAV}	$T_A = 45^\circ\text{C}$ ($R_{thKA} = 0.5\text{ K/W}$), module	20	A
I_{dAVM}	module	20	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $V_R = 0$	t = 10 ms (50 Hz), sine	100 A
		t = 8.3 ms (60 Hz), sine	106 A
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine	85 A
		t = 8.3 ms (60 Hz), sine	90 A
I^2t	$T_{VJ} = 45^\circ\text{C}$ $V_R = 0$	t = 10 ms (50 Hz), sine	50 A ² s
		t = 8.3 ms (60 Hz), sine	47 A ² s
	$T_{VJ} = T_{VJM}$ $V_R = 0$	t = 10 ms (50 Hz), sine	36 A ² s
		t = 8.3 ms (60 Hz), sine	33 A ² s
T_{VJ}		-40...+130	°C
T_{VJM}		130	°C
T_{stg}		-40...+125	°C
V_{ISOL}	50/60 Hz, RMS t = 1 min	3000	V~
	$I_{ISOL} \leq 1\text{ mA}$ t = 1 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

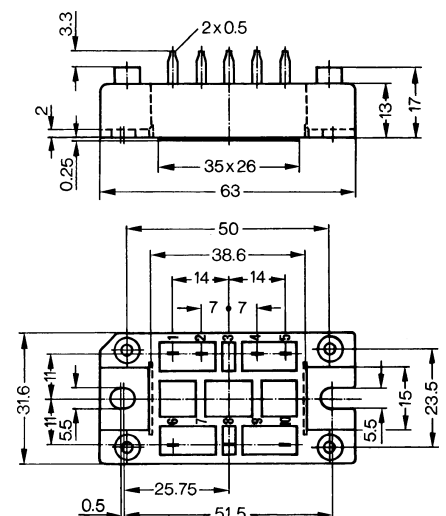
Applications

- 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	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$	\leq	0.3 mA
	$V_R = V_{RRM}$ $T_{VJ} = T_{VJM}$	\leq	5 mA
V_F	$I_F = 7\text{ A}$; $T_{VJ} = 25^\circ\text{C}$	\leq	1.15 V
V_{T0}	For power-loss calculations only		0.8 V
r_T			50 mΩ
R_{thJH}	per diode, 120° rect.		4.5 K/W
	per module, 120° rect.		0.75 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.

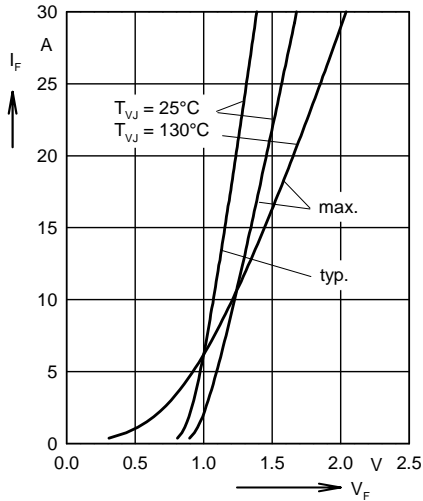


Fig. 1 Forward current versus voltage drop per diode

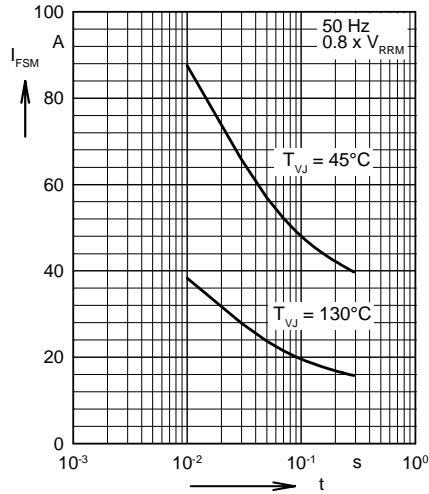


Fig. 2 Surge overload current per diode
I_{FSM}: Crest value. t:duration

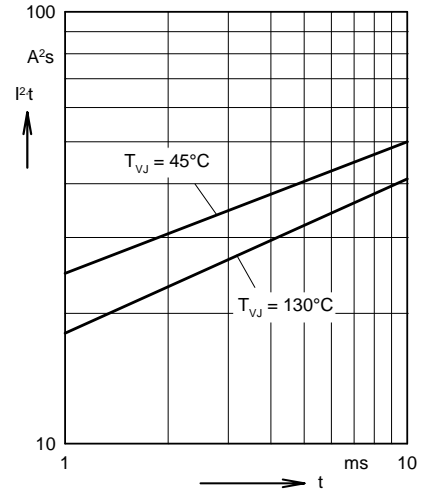


Fig. 3 I²t versus time (1-10 ms) per diode

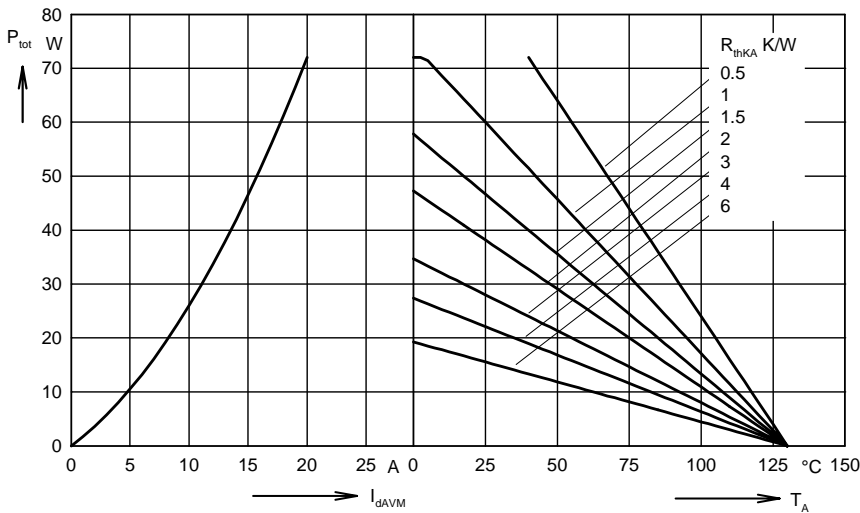


Fig. 4 Power dissipation versus direct output current and ambient temperature

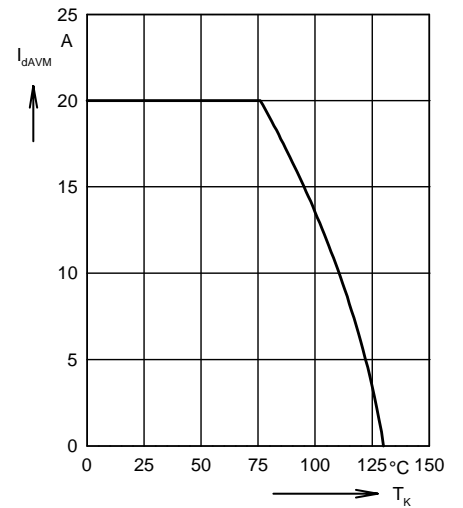


Fig. 5 Maximum forward current at heatsink temperature T_k

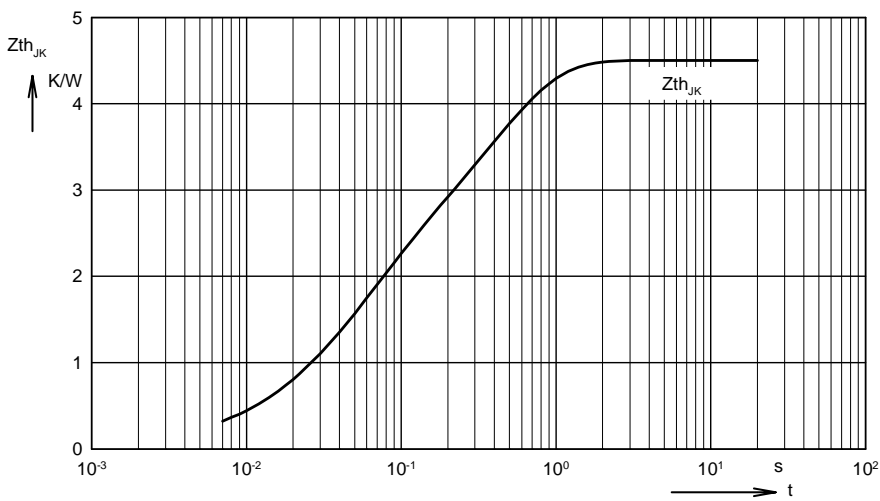


Fig. 6 Transient thermal impedance junction to heatsink per diode

Constants for Z_{thJK} calculation:

i	R _{th} (K/W)	t _i (s)
1	0.015	0.008
2	0.1	0.02
3	1.835	0.05
4	2.55	0.4

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