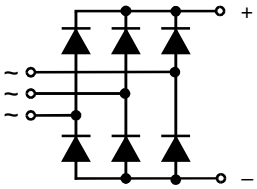
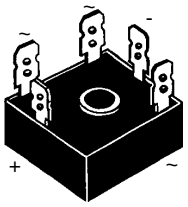
Three Phase Rectifier Bridge

I_{dAVM} = 25 A
V_{RRM} = 1200-1800 V

V_{RSM} V	V_{RRM} V	Type
600	600	VUO 25-06NO8
1200	1200	VUO 25-12NO8
1400	1400	VUO 25-14NO8
1600	1600	VUO 25-16NO8
1800	1800	VUO 25-18NO8





Symbol	Test Conditions		Maximum Ratings	
I_{dAV}	T_C = 85°C, module		20	A
I_{dAVM}	T_C = 63°C, module		25	A
I_{FSM}	T_{VJ} = 45°C;	t = 10 ms (50 Hz), sine	380	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	400	A
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	360	A
	V_R = 0	t = 8.3 ms (60 Hz), sine	400	A
I^2t	T_{VJ} = 45°C	t = 10 ms (50 Hz), sine	725	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	750	A^2s
	$T_{VJ} = T_{VJM}$	t = 10 ms (50 Hz), sine	650	A^2s
	V_R = 0	t = 8.3 ms (60 Hz), sine	650	A^2s
T_{VJ}			-40...+150	°C
T_{VJM}			150	°C
T_{stg}			-40...+150	°C
V_{ISOL}	50/60 Hz, RMS	t = 1 min	2500	V~
	$I_{ISOL} \leq$ 1 mA	t = 1 s	3000	V~
M_d	Mounting torque	(M5)	2 ± 10 %	Nm
		(10-32 UNF)	18 ± 10 %	lb.in.
Weight	typ.		22	g

Symbol	Test Conditions		Characteristic Values	
I_R	T_{VJ} = 25°C;	$V_R = V_{RRM}$	≤ 0.3	mA
	$T_{VJ} = T_{VJM}$;	$V_R = V_{RRM}$	≤ 5.0	mA
V_F	I_F = 150 A;	T_{VJ} = 25°C	≤ 2.2	V
V_{T0}	For power-loss calculations only		0.85	V
r_T			12	mΩ
R_{thJC}	per diode; DC current		9.3	K/W
	per module		1.55	K/W
R_{thJH}	per diode; DC current		10.2	K/W
	per module		1.7	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 DIN 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 ¼" fast-on terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL registered E 72873

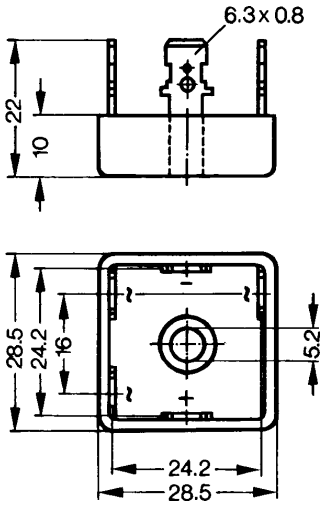
Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with one screw
- Space and weight savings
- Improved temperature and power cycling

Dimensions in mm (1 mm = 0.0394")



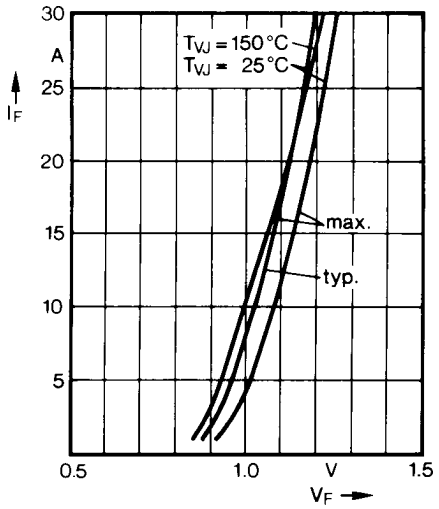


Fig. 1 Forward current versus voltage drop per diode

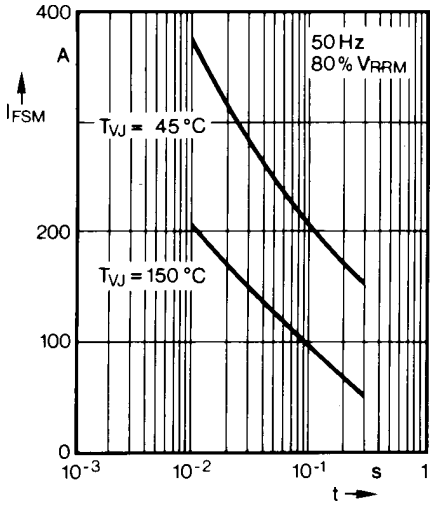


Fig. 2 Surge overload current per diode I_{FSM}: Crest value. t: duration

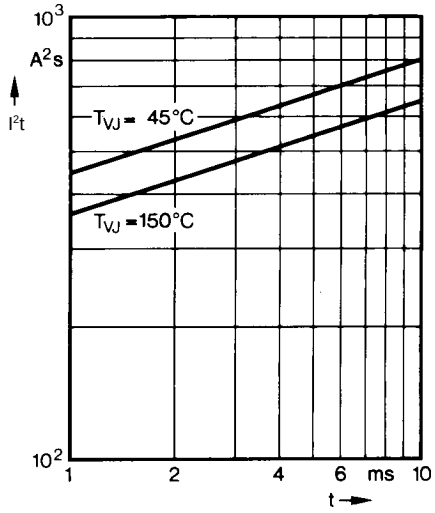


Fig. 3 I^2t versus time (1-10 ms) per diode

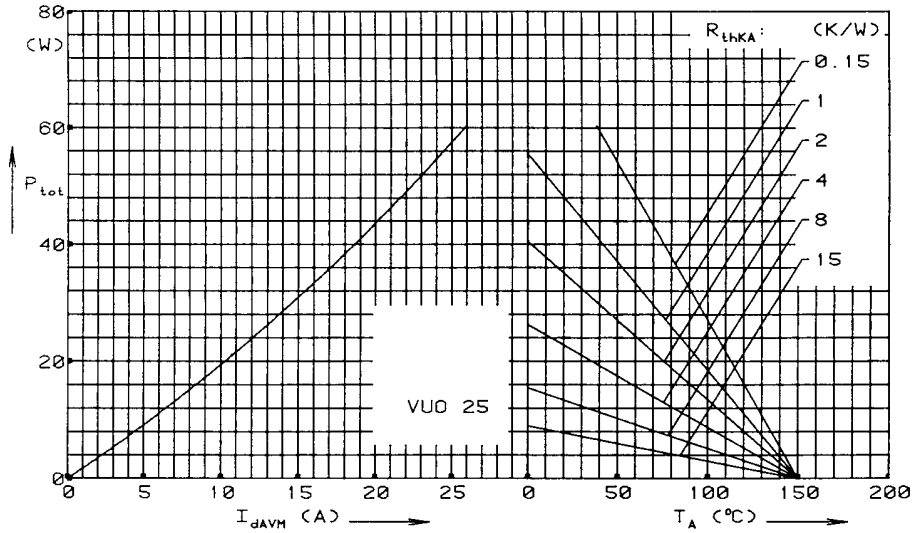


Fig. 4 Power dissipation versus direct output current and ambient temperature

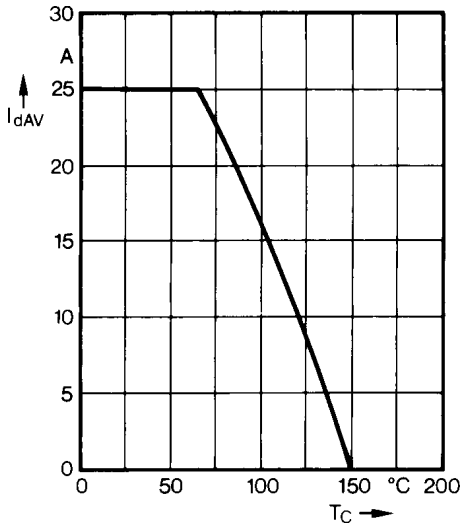


Fig. 5 Maximum forward current at case temperature

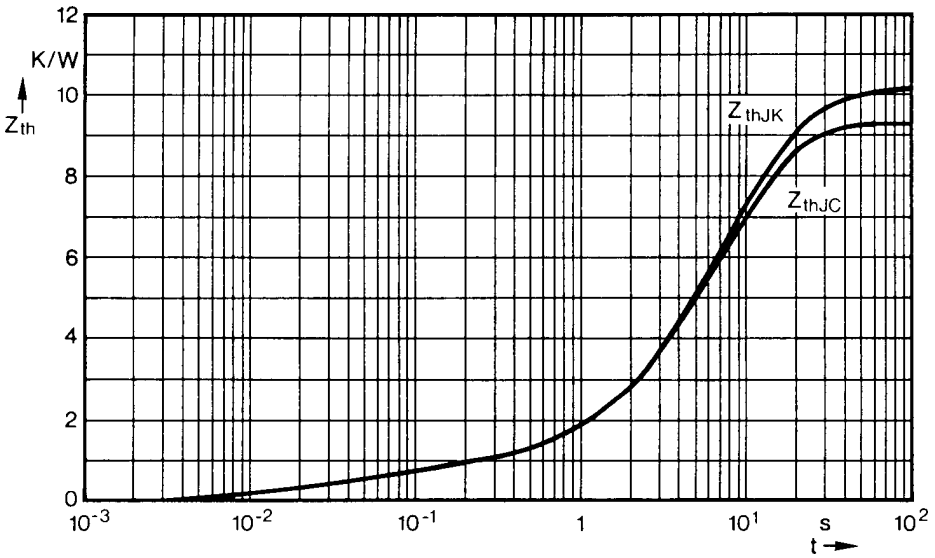


Fig. 6 Transient thermal impedance per diode

Constants for Z_{thJC} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.194	0.024
2	0.556	0.07
3	2.25	5.8
4	6.3	8.5

Constants for Z_{thJK} calculation:

i	R_{thi} (K/W)	t_i (s)
1	0.194	0.024
2	0.556	0.07
3	2.25	5.8
4	6.3	8.5
5	0.9	28.0