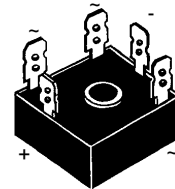
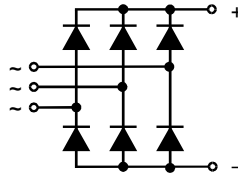


## Three Phase Rectifier Bridge

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

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

### Features

- Package with 1/4" 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

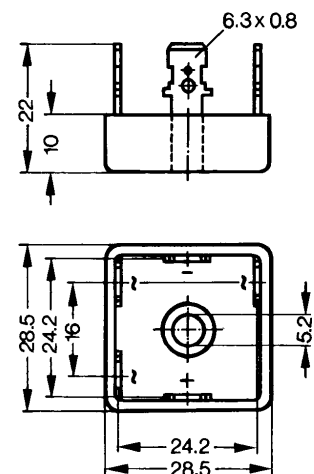
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

### Advantages

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

Symbol	Test Conditions	Characteristic Values	
$I_R$	$T_{VJ} = 25^\circ\text{C}$ ; $T_{VJ} = T_{VJM}$	$V_R = V_{RRM}$ $V_R = V_{RRM}$	$\leq 0.3 \text{ mA}$ $\leq 5.0 \text{ mA}$
$V_F$	$I_F = 150 \text{ A}$ ; $T_{VJ} = 25^\circ\text{C}$		$\leq 2.2 \text{ V}$
$V_{T0}$	For power-loss calculations only		0.85 V
$r_T$			12 mΩ
$R_{thJC}$	per diode; DC current per module		9.3 K/W 1.55 K/W
$R_{thJH}$	per diode; DC current per module		10.2 K/W 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 <sup>2</sup>

### Dimensions in mm (1 mm = 0.0394")



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.

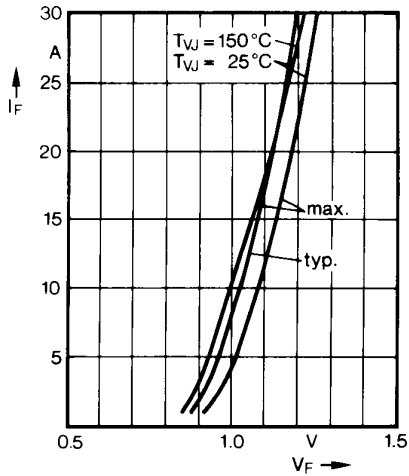


Fig. 1 Forward current versus voltage drop per diode

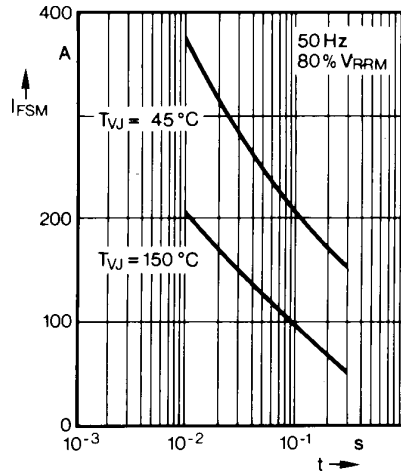


Fig. 2 Surge overload current per diode  
 $I_{FSM}$ : Crest value.  $t$ : duration

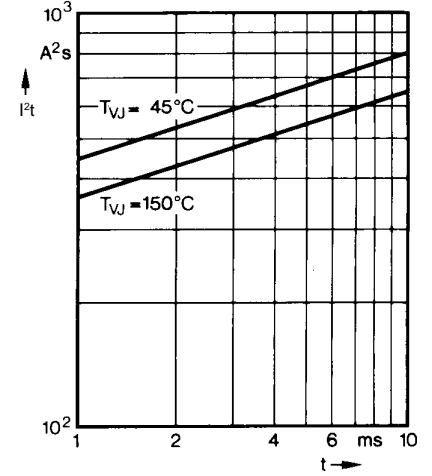


Fig. 3  $I^2t$  versus time (1-10 ms) per diode

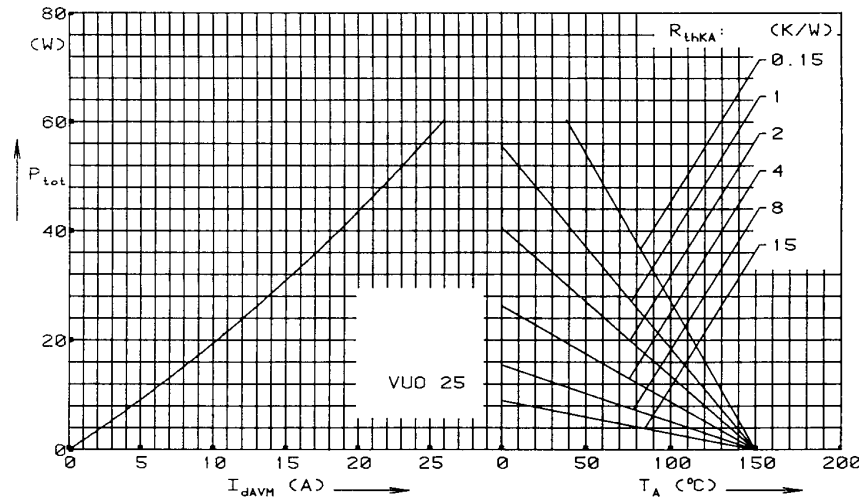


Fig. 4 Power dissipation versus direct output current and ambient temperature

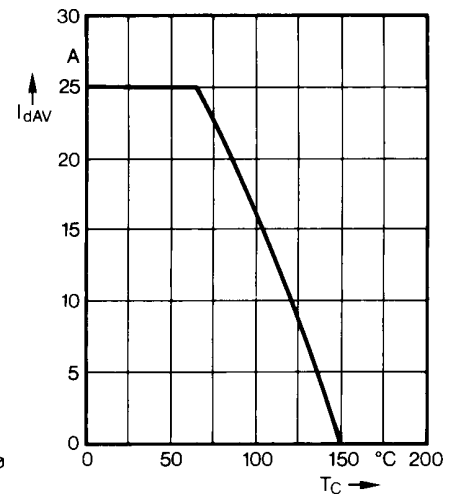


Fig. 5 Maximum forward current at case temperature

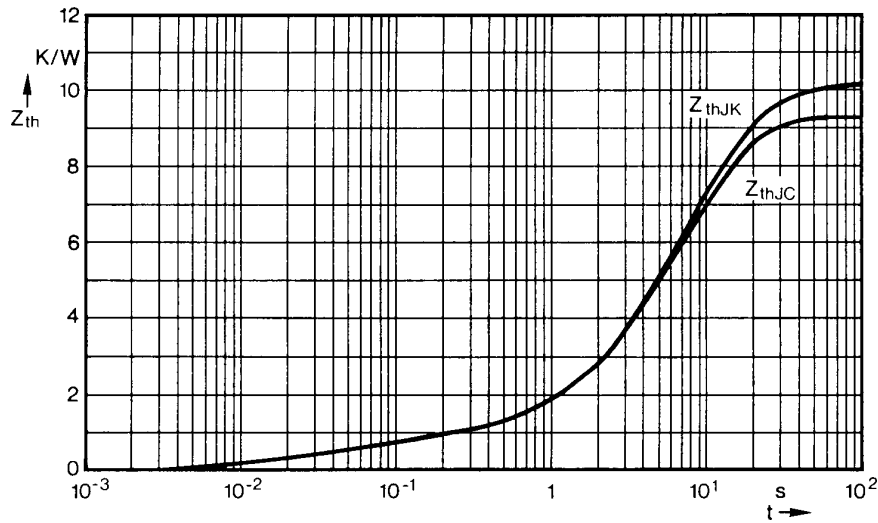


Fig. 6 Transient thermal impedance per diode

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