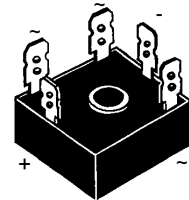
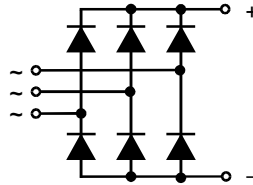


Three Phase Rectifier Bridge

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

| 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 |
|------------------------------------|--|---|
| I_{dAV} I_{dAVM} | $T_C = 85^\circ\text{C}$, module $T_C = 63^\circ\text{C}$, module | 20 A 25 A |
| I_{FSM} | $T_{VJ} = 45^\circ\text{C}$; $V_R = 0$ | t = 10 ms (50 Hz), sine 380 A t = 8.3 ms (60 Hz), sine 400 A |
| | $T_{VJ} = T_{VJM}$ $V_R = 0$ | t = 10 ms (50 Hz), sine 360 A t = 8.3 ms (60 Hz), sine 400 A |
| I^2t | $T_{VJ} = 45^\circ\text{C}$ $V_R = 0$ | t = 10 ms (50 Hz), sine 725 A ² s t = 8.3 ms (60 Hz), sine 750 A ² s |
| | $T_{VJ} = T_{VJM}$ $V_R = 0$ | t = 10 ms (50 Hz), sine 650 A ² s t = 8.3 ms (60 Hz), sine 650 A ² s |
| T_{VJ} T_{VJM} T_{stg} | | -40...+150 °C 150 °C -40...+150 °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) | $2 \pm 10 \%$ Nm $18 \pm 10 \%$ 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

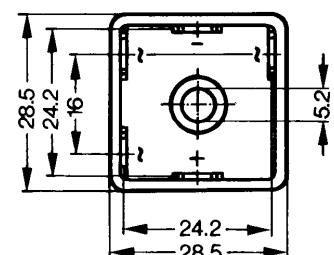
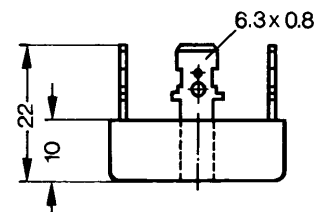
- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

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

| Symbol | Test Conditions | Characteristic Values |
|------------|--|--|
| I_R | $T_{VJ} = 25^\circ\text{C}$; $T_{VJ} = T_{VJM}$ | $V_R = V_{RRM} \leq 0.3 \text{ mA}$ $V_R = V_{RRM} \leq 5.0 \text{ mA}$ |
| 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 | 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 |

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.

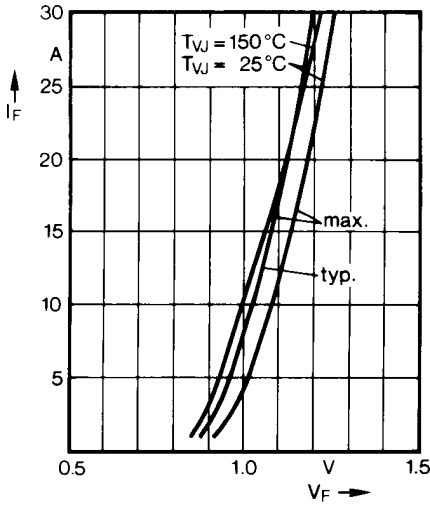


Fig. 1 Forward current versus voltage drop per diode

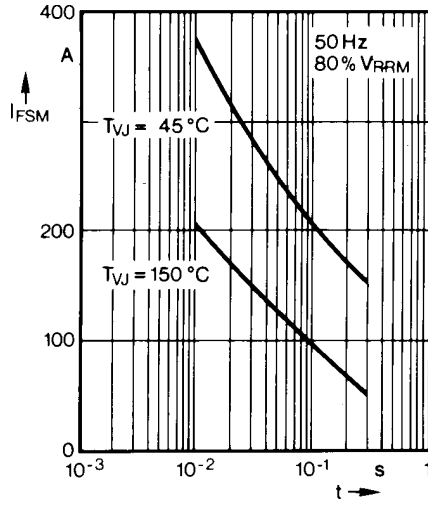


Fig. 2 Surge overload current per diode
I_{FSM}: Crest value. t: duration

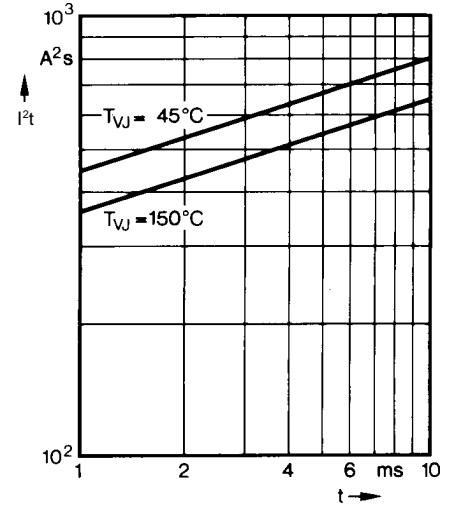


Fig. 3 I²t versus time (1-10 ms) per diode

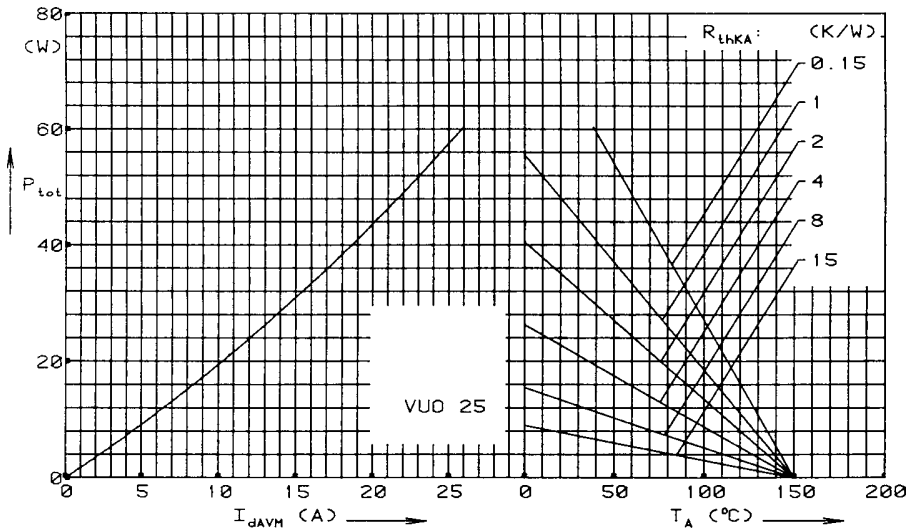


Fig. 4 Power dissipation versus direct output current and ambient temperature

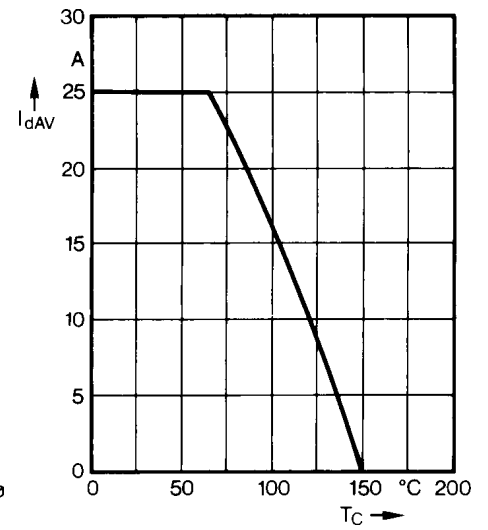


Fig. 5 Maximum forward current at case temperature

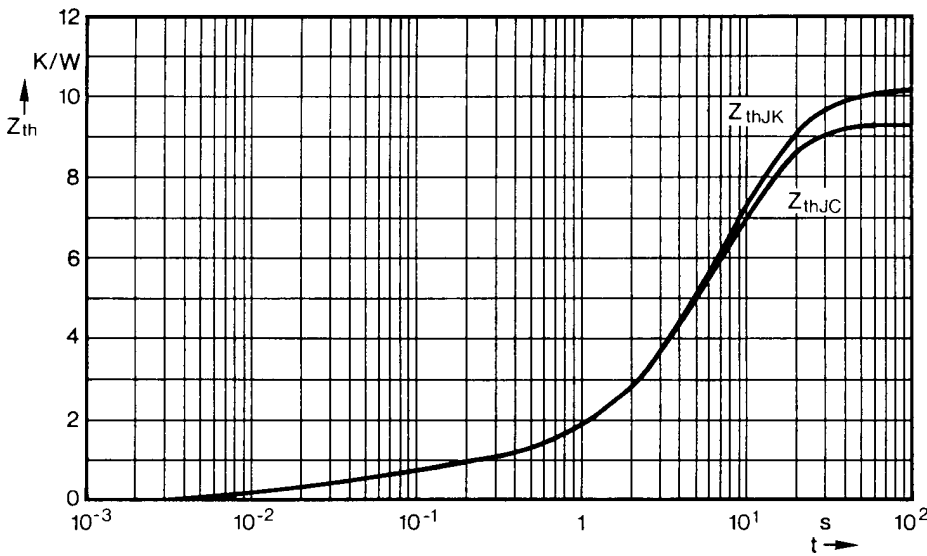


Fig. 6 Transient thermal impedance per diode

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 |