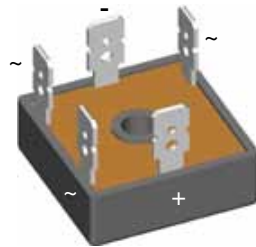
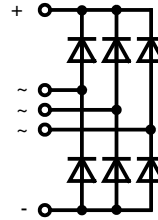


Three Phase Rectifier Bridge

$$I_{dAV} = 35 \text{ A}$$

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

| V_{RSM} V | V_{RRM} V | Type |
|----------------|----------------|--------------|
| 900 | 800 | VUO 36-08NO8 |
| 1300 | 1200 | VUO 36-12NO8 |
| 1500 | 1400 | VUO 36-14NO8 |
| 1700 | 1600 | VUO 36-16NO8 |
| 1900 | 1800 | VUO 36-18NO8 |



| Symbol | Conditions | Maximum Ratings | |
|------------|---|-----------------|------------------|
| I_{dAV} | $T_C = 85^\circ\text{C}$, module | 27 | A |
| I_{dAVM} | $T_C = 62^\circ\text{C}$, module | 35 | A |
| I_{FSM} | $T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz) | 550 | A |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz) | 600 | A |
| | $T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz) | 500 | A |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz) | 550 | A |
| I^2t | $T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz) | 1520 | A ² s |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz) | 1520 | A ² s |
| | $T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz) | 1250 | A ² s |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz) | 1250 | A ² s |
| T_{VJ} | | -40...+150 | °C |
| T_{VJM} | | 150 | °C |
| T_{stg} | | -40...+150 | °C |
| V_{ISOL} | 50/60 Hz, RMS $t = 1 \text{ min}$ | 2500 | V~ |
| | $I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$ | 3000 | V~ |
| M_d | Mounting torque (M5) (10-32 UNF) | 2 ±10% | Nm |
| | | 18 ±10% | lb.in. |
| Weight | Typ. | 22 | g |

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

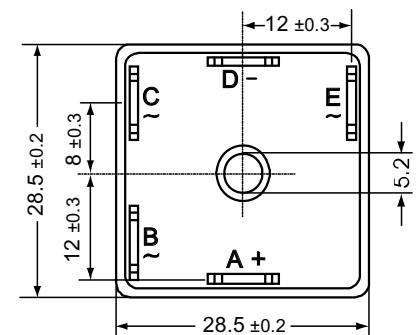
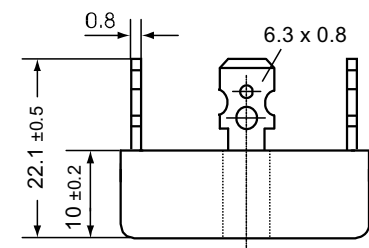
Applications

- 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 & power cycling

Dimensions in mm (1 mm = 0.0394")



| Symbol | Conditions | Characteristic Values | |
|------------|---|-----------------------|------------------|
| I_R | $V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$ | 0.3 | mA |
| | | 2.0 | mA |
| V_F | $I_F = 150 \text{ A}$ $T_{VJ} = 25^\circ\text{C}$ | 1.7 | V |
| V_{T0} | For power-loss calculations only | 0.8 | V |
| r_t | | 7.4 | mΩ |
| R_{thJC} | per diode; 120° el. | 7.50 | K/W |
| | per module | 1.25 | K/W |
| R_{thJH} | per diode; 120° el. | 8.40 | K/W |
| | per module | 1.40 | 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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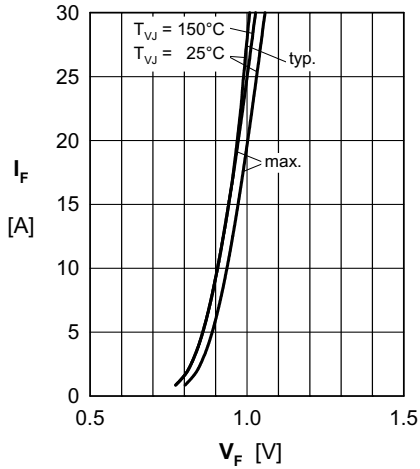


Fig. 1 Forward current versus voltage drop per diode

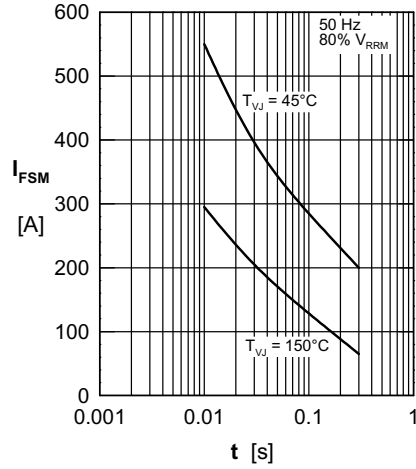


Fig. 2 Surge overload current per diode
I_{FSM}: Crest value. t: duration

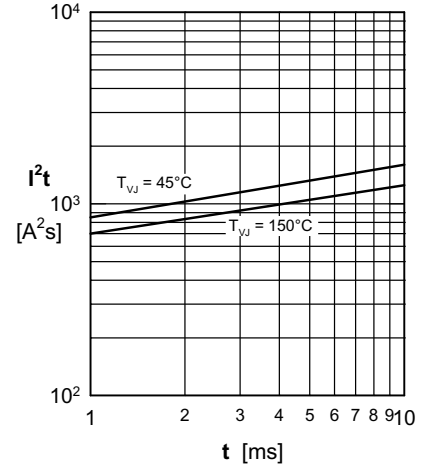


Fig. 3 I²t versus time (1-10 ms) per diode

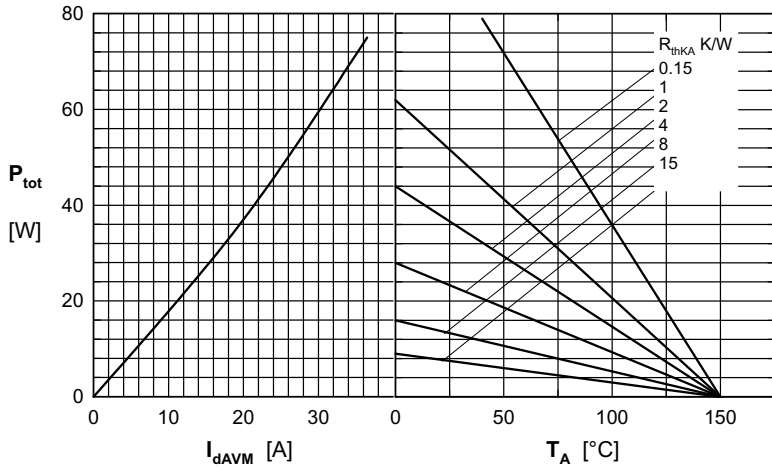


Fig. 4 Power dissipation vs. direct output current and ambient temperature

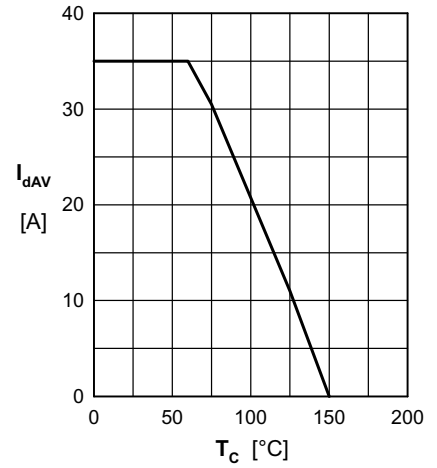


Fig. 5 Maximum forward current at case temperature

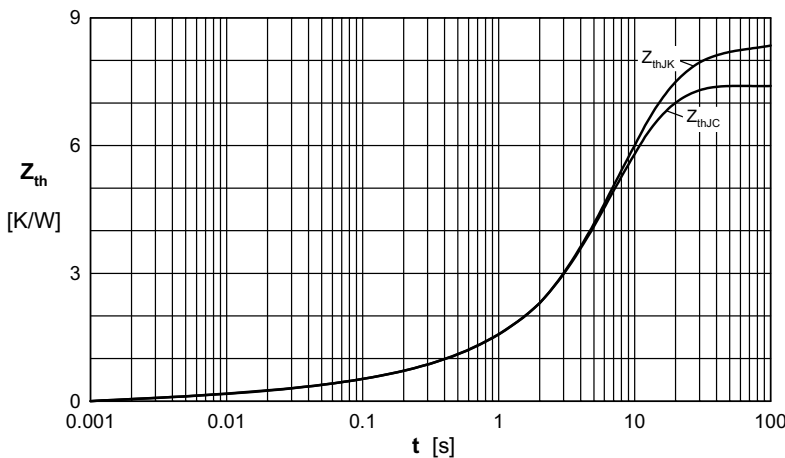


Fig. 6 Transient thermal impedance per diode

Constants for Z_{thJC} calculation:

| i | R _{thi} (K/W) | t _i (s) |
|---|------------------------|--------------------|
| 1 | 0.183 | 0.032 |
| 2 | 0.528 | 0.085 |
| 3 | 1.89 | 5.9 |
| 4 | 4.9 | 8.3 |

Constants for Z_{thJK} calculation:

| i | R _{thi} (K/W) | t _i (s) |
|---|------------------------|--------------------|
| 1 | 0.183 | 0.032 |
| 2 | 0.528 | 0.085 |
| 3 | 1.89 | 5.9 |
| 4 | 4.9 | 8.3 |
| 5 | 0.9 | 28 |