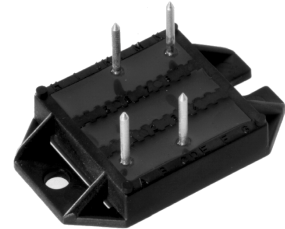
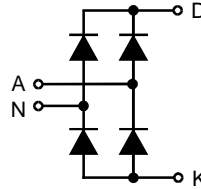


Single Phase Rectifier Bridge

$I_{dAV} = 68 \text{ A}$
 $V_{RRM} = 800-1600 \text{ V}$

Preliminary data

| V_{RSM} V | V_{RRM} V | Types |
|----------------|----------------|--------------|
| 900 | 800 | VBO 68-08NO7 |
| 1300 | 1200 | VBO 68-12NO7 |
| 1500 | 1400 | VBO 68-14NO7 |
| 1700 | 1600 | VBO 68-16NO7 |



| Symbol | Test Conditions | Maximum Ratings |
|-------------|---|--|
| I_{dAV} ① | $T_C = 90^\circ\text{C}$, module | 68 A |
| I_{FSM} | $T_{VJ} = 45^\circ\text{C}$; $V_R = 0$ | $t = 10 \text{ ms}$ (50 Hz), sine 530 A |
| | | $t = 8.3 \text{ ms}$ (60 Hz), sine 570 A |
| | $T_{VJ} = T_{VJM}$; $V_R = 0$ | $t = 10 \text{ ms}$ (50 Hz), sine 480 A |
| | | $t = 8.3 \text{ ms}$ (60 Hz), sine 520 A |
| I^2t | $T_{VJ} = 45^\circ\text{C}$; $V_R = 0$ | $t = 10 \text{ ms}$ (50 Hz), sine 1400 A ² s |
| | | $t = 8.3 \text{ ms}$ (60 Hz), sine 1360 A ² s |
| | $T_{VJ} = T_{VJM}$; $V_R = 0$ | $t = 10 \text{ ms}$ (50 Hz), sine 1150 A ² s |
| | | $t = 8.3 \text{ ms}$ (60 Hz), sine 1140 A ² s |
| T_{VJ} | | -40...+150 °C |
| T_{VJM} | | 150 °C |
| T_{stg} | | -40...+125 °C |
| V_{ISOL} | 50/60 Hz, RMS $t = 1 \text{ min}$ $I_{ISOL} \leq 1 \text{ mA}$ $t = 1 \text{ s}$ | 2500 V~ |
| | | 3000 V~ |
| M_d | Mounting torque (M4) | 1.5 - 2 Nm 14 - 18 lb.in. |
| Weight | typ. | 18 g |

Features

- Package with DCB ceramic base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- Leads suitable for PC board soldering

Applications

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

Advantages

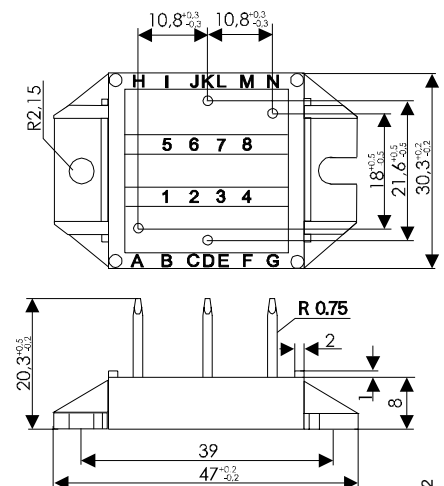
- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling capability
- Small and light weight

| Symbol | Test Conditions | Characteristic Values |
|------------|---|---|
| I_R | $V_R = V_{RRM}$; $V_R = V_{RRM}$; | $T_{VJ} = 25^\circ\text{C}$ $\leq 0.5 \text{ mA}$ |
| | | $T_{VJ} = T_{VJM}$ $\leq 3 \text{ mA}$ |
| V_F | $I_F = 80 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$ | $\leq 1.5 \text{ V}$ |
| V_{T0} | For power-loss calculations only | 0.8 V |
| r_T | | 7.5 mΩ |
| R_{thJC} | per diode; DC current | 1.2 K/W |
| | per module | 0.3 K/W |
| R_{thJH} | per diode; DC current | 1.5 K/W |
| | per module | 0.38 K/W |
| d_s | Creeping distance on surface | 11.2 mm |
| d_A | Creepage distance in air | 9.7 mm |
| a | Max. allowable acceleration | 50 m/s ² |

Data according to IEC 60747 refer to a single diode unless otherwise stated
 ① for resistive load at bridge output.

IXYS reserves the right to change limits, test conditions and dimensions.

Dimensions in mm (1 mm = 0.0394")



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