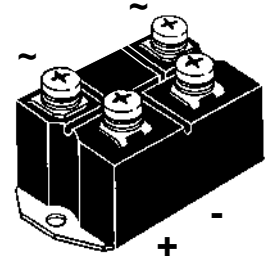
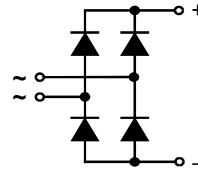


Single Phase Rectifier Bridge

$$I_{dAV} = 52/72 \text{ A}$$

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

| V_{RSM} V | V_{RRM} V | Type | |
|----------------|----------------|--------------|--------------|
| 800 | 800 | VBO 52-08NO7 | VBO 72-08NO7 |
| 1200 | 1200 | VBO 52-12NO7 | VBO 72-12NO7 |
| 1400 | 1400 | VBO 52-14NO7 | VBO 72-14NO7 |
| 1600 | 1600 | VBO 52-16NO7 | VBO 72-16NO7 |
| 1800 | 1800 | VBO 52-18NO7 | VBO 72-18NO7 |



| Symbol | Test Conditions | Maximum Ratings | |
|------------|---|-----------------|------------------|
| | | VBO 52 | VBO 72 |
| I_{dAV} | $T_C = 100^\circ\text{C}$, module | 52 | 72 |
| I_{dAV} | $T_A = 45^\circ\text{C}$ ($R_{thCA} = 0.6 \text{ K/W}$), module | 41 | 49 |
| I_{FSM} | $T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine | 550 | 750 |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine | 600 | 820 |
| | $T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine | 500 | 670 |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine | 550 | 740 |
| I^2t | $T_{VJ} = 45^\circ\text{C}$; $t = 10 \text{ ms}$ (50 Hz), sine | 1520 | 2800 |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine | 1520 | 2800 |
| | $T_{VJ} = T_{VJM}$; $t = 10 \text{ ms}$ (50 Hz), sine | 1250 | 2250 |
| | $V_R = 0$; $t = 8.3 \text{ ms}$ (60 Hz), sine | 1250 | 2250 |
| T_{VJ} | | -40...+150 | $^\circ\text{C}$ |
| T_{VJM} | | 150 | $^\circ\text{C}$ |
| T_{stg} | | -40...+125 | $^\circ\text{C}$ |
| 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) | $5 \pm 15 \%$ | Nm |
| | Terminal connection torque (M5) | $5 \pm 15 \%$ | Nm |
| Weight | typ. | 160 | g |

Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1800 V
- Low forward voltage drop
- UL applied

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

| Symbol | Test Conditions | Characteristic Values | |
|------------|---|-----------------------|------------------|
| | | VBO 52 | VBO 72 |
| I_R | $V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$ | ≤ 0.3 | 0.3 mA |
| | $V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$ | ≤ 5 | 5 mA |
| V_F | $I_F = 150 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$ | ≤ 1.8 | 1.6 V |
| V_{T0} | For power-loss calculations only | 0.8 | 0.8 V |
| r_T | $T_{VJ} = T_{VJM}$ | 8 | 5 mΩ |
| R_{thJC} | per diode | 1.45 | 1.1 K/W |
| | per module | 0.36 | 0.28 K/W |
| R_{thJK} | per diode | 1.87 | 1.52 K/W |
| | per module | 0.47 | 0.38 K/W |
| d_s | Creeping distance on surface | 10 | mm |
| d_A | Creepage distance in air | 9.4 | mm |
| a | Max. allowable acceleration | 50 | m/s ² |

Data according to IEC 60747 refer to a single diode unless otherwise stated.
 IXYS reserves the right to change limits, test conditions and dimensions.

Dimensions in mm (1 mm = 0.0394")

