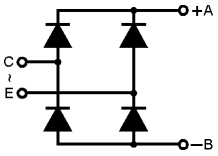
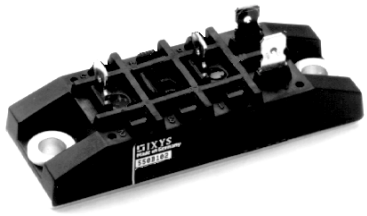
# Single Phase Rectifier Bridge

$I_{dAV}$ = 55 A
$V_{RRM}$ = 800-1600 V

Preliminary data

| $V_{RSM}$ V | $V_{RRM}$ V | Types |
|---|---|---|
| 900 | 800 | VBO 55-08NO7 |
| 1300 | 1200 | VBO 55-12NO7 |
| 1500 | 1400 | VBO 55-14NO7 |
| 1700 | 1600 | VBO 55-16NO7 |
| 1900 | 1800 | VBO 55-18NO7 |



| Symbol | Test Conditions | | Maximum Ratings | |
|---|---|---|---|---|
| $I_{dAV}$ ① | $T_C$ = 100°C, module | | 55 | A |
| $I_{FSM}$ | $T_{VJ}$ = 45°C; | t = 10 ms (50 Hz), sine | 750 | A |
| | $V_R$ = 0 | t = 8.3 ms (60 Hz), sine | 820 | A |
| | $T_{VJ}$ = $T_{VJM}$ | t = 10 ms (50 Hz), sine | 600 | A |
| | $V_R$ = 0 | t = 8.3 ms (60 Hz), sine | 700 | A |
| $I^2t$ | $T_{VJ}$ = 45°C | t = 10 ms (50 Hz), sine | 2800 | $A^2s$ |
| | $V_R$ = 0 | t = 8.3 ms (60 Hz), sine | 2820 | $A^2s$ |
| | $T_{VJ}$ = $T_{VJM}$ | t = 10 ms (50 Hz), sine | 2200 | $A^2s$ |
| | $V_R$ = 0 | t = 8.3 ms (60 Hz), sine | 2250 | $A^2s$ |
| $T_{VJ}$ | | | -40...+150 | °C |
| $T_{VJM}$ | | | 150 | °C |
| $T_{stg}$ | | | -40...+125 | °C |
| $V_{ISOL}$ | 50/60 Hz, RMS | t = 1 min | 2500 | V~ |
| | $I_{ISOL}$ ≤ 1 mA | t = 1 s | 3000 | V~ |
| $M_d$ | Mounting torque | (M5) | 5 ± 15 % | Nm |
| | | (10-32 UNF) | 44 ± 15 % | lb.in. |
| Weight | typ. | | 110 | g |

| Symbol | Test Conditions | | Characteristic Values | | |
|---|---|---|---|---|---|
| $I_R$ | $V_R$ = $V_{RRM}$; | $T_{VJ}$ = 25°C | ≤ | 0.5 | mA |
| | $V_R$ = $V_{RRM}$; | $T_{VJ}$ = $T_{VJM}$ | ≤ | 10 | mA |
| $V_F$ | $I_F$ = 150 A; | $T_{VJ}$ = 25°C | ≤ | 1.6 | V |
| $V_{T0}$ | For power-loss calculations only | | | 0.8 | V |
| $r_T$ | $T_{VJ}$ = $T_{VJM}$ | | | 6 | mΩ |
| $R_{thJC}$ | per diode; DC current | | | 1.3 | K/W |
| | per module | | | 0.325 | K/W |
| $R_{thJK}$ | per diode, DC current | | | 1.6 | K/W |
| | per module | | | 0.4 | K/W |
| $d_S$ | Creeping distance on surface | | | 16.1 | mm |
| $d_A$ | Creepage distance in air | | | 7.5 | mm |
| a | Max. allowable acceleration | | | 50 | $m/s^2$ |

### Features

- Package with copper base plate
- Isolation voltage 3000 V~
- Planar passivated chips
- Low forward voltage drop
- 1/4" fast-on power terminals

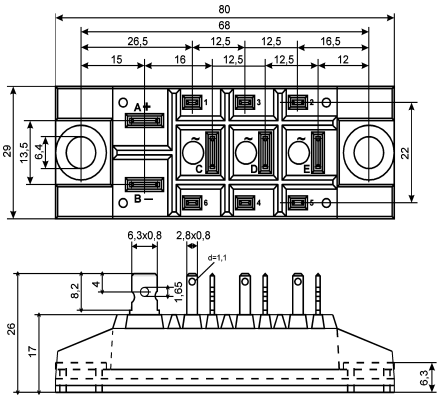
### Applications

- 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

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




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.

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