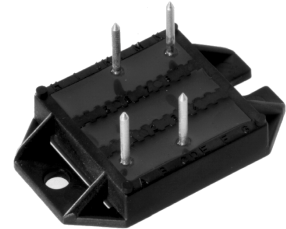
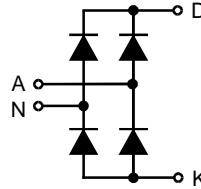


Single Phase Rectifier Bridge

$I_{dAVM} = 54 \text{ A}$
 $V_{RRM} = 800-1600 \text{ V}$

Preliminary data

| V_{RSM} V | V_{RRM} V | Type |
|----------------|----------------|--------------|
| 900 | 800 | VBO 54-08NO7 |
| 1300 | 1200 | VBO 54-12NO7 |
| 1500 | 1400 | VBO 54-14NO7 |
| 1700 | 1600 | VBO 54-16NO7 |



| Symbol | Test Conditions | Maximum Ratings |
|---------------------|--|---|
| $I_{dAV} \text{ ①}$ | $T_C = 100^\circ\text{C}$, module | 54 A |
| I_{FSM} | $T_{VJ} = 45^\circ\text{C}$; $V_R = 0$ | t = 10 ms (50 Hz), sine 300 A t = 8.3 ms (60 Hz), sine 320 A |
| | $T_{VJ} = T_{VJM}$ $V_R = 0$ | t = 10 ms (50 Hz), sine 260 A t = 8.3 ms (60 Hz), sine 280 A |
| I^2t | $T_{VJ} = 45^\circ\text{C}$ $V_R = 0$ | t = 10 ms (50 Hz), sine 450 A ² s t = 8.3 ms (60 Hz), sine 425 A ² s |
| | $T_{VJ} = T_{VJM}$ $V_R = 0$ | t = 10 ms (50 Hz), sine 340 A ² s t = 8.3 ms (60 Hz), sine 325 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 min 2500 V~ |
| | $I_{ISOL} \leq 1 \text{ mA}$ | t = 1 s 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 | $V_R = V_{RRM}$; $T_{VJ} = 25^\circ\text{C}$ | $\leq 0.5 \text{ mA}$ |
| | $V_R = V_{RRM}$; $T_{VJ} = T_{VJM}$ | $\leq 3 \text{ mA}$ |
| V_F | $I_F = 55 \text{ A}$; $T_{VJ} = 25^\circ\text{C}$ | $\leq 1.46 \text{ V}$ |
| V_{T0} | For power-loss calculations only | 0.8 V |
| r_T | | 13 mΩ |
| R_{thJC} | per diode; DC current | 1.1 K/W |
| | per module | 0.28 K/W |
| R_{thJH} | per diode; DC current | 1.6 K/W |
| | per module | 0.4 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")

