

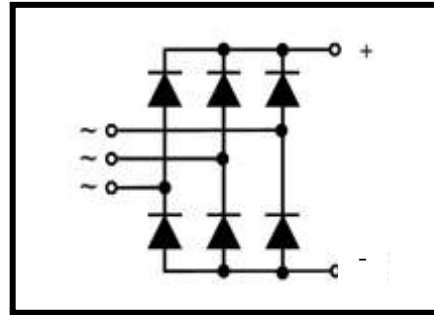
Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1600 V
- Low forward voltage drop



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

ABSOLUTE MAXIMUM RATINGS

$T_C=25^{\circ}\text{C}$ unless otherwise specified

| Symbol | Test Condition | Value | Unit |
|----------------|---|-------------|----------------------|
| V_{RRM} | | 1600 | V |
| $I_{d(AV)}$ | $T_C=100^{\circ}\text{C}$, module | 100 | A |
| I_{FSM} | $T_J=45^{\circ}\text{C}$; $t=10\text{ms}$ (50Hz),sine | 1000 | A |
| | $V_R=0$ $t=8.3\text{ms}$ (60Hz),sine | 1080 | A |
| | $T_J=150^{\circ}\text{C}$; $t=10\text{ms}$ (50Hz),sine | 800 | A |
| | $V_R=0$ $t=8.3\text{ms}$ (60Hz),sine | 860 | A |
| I^2t | $T_J=45^{\circ}\text{C}$; $t=10\text{ms}$ (50Hz),sine | 5000 | A^2s |
| | $V_R=0$ $t=8.3\text{ms}$ (60Hz),sine | 5830 | A^2s |
| | $T_J=150^{\circ}\text{C}$; $t=10\text{ms}$ (50Hz),sine | 3200 | A^2s |
| | $V_R=0$ $t=8.3\text{ms}$ (60Hz),sine | 3700 | A^2s |
| T_J, T_{STG} | | -40 to +150 | $^{\circ}\text{C}$ |
| T_{JM} | | 150 | $^{\circ}\text{C}$ |
| V_{ISOL} | 50/60Hz RMS $t=1$ min | 2500 | V~ |
| | $I_{ISOL}\leq 1\text{mA}$ $t=1$ s | 3000 | V~ |
| Md | Mounting torque(M5) | $5\pm 15\%$ | N·m |
| | Terminal connection torque(M5) | $5\pm 15\%$ | N·m |
| Weight | typical | 130 | g |

ELECTRICAL AND THERMAL CHARACTERISTICS $T_C=25^{\circ}\text{C}$ unless otherwise specified

| Symbol | Test Condition | Value | Unit |
|------------|--|------------|----------------|
| I_R | $V_R = V_{RRM}; T_J = 25^{\circ}\text{C}$ | ≤ 0.5 | mA |
| | $V_R = V_{RRM}; T_J = T_{JM}$ | ≤ 5 | mA |
| V_F | $I_F = 200\text{A}; T_J = 125^{\circ}\text{C}$ | 1.4 | V |
| V_{T0} | For power-loss calculations only | 0.8 | V |
| R_{thJC} | per diode; DC current | 0.9 | K/W |
| | Per module | 0.15 | K/W |
| R_{thCS} | per diode; DC current(typ.) | 0.42 | K/W |
| | per module(typ.) | 0.07 | K/W |
| d_s | Creeping distance on surface | 10 | mm |
| d_A | Cree page distance in air | 9.4 | mm |
| a | Max. allowable acceleration | 50 | m/s^2 |

NOTE: Data according to IEC 60747 and refer to a single diode unless otherwise stated.

Package Outline (Dimensions in mm)

