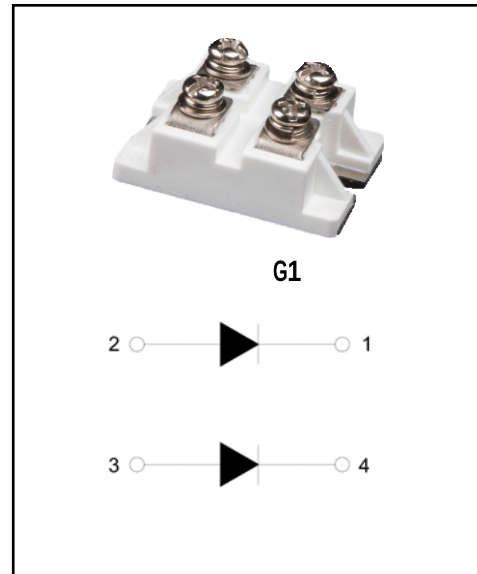


## PRODUCT FEATURES

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- High System Power Density
- Popular SOT-227 Package

## APPLICATIONS

- Inversion Welder
- Uninterruptible Power Supply (UPS)
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- Power Factor Correction (PFC) Circuit



## ABSOLUTE MAXIMUM RATINGS

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

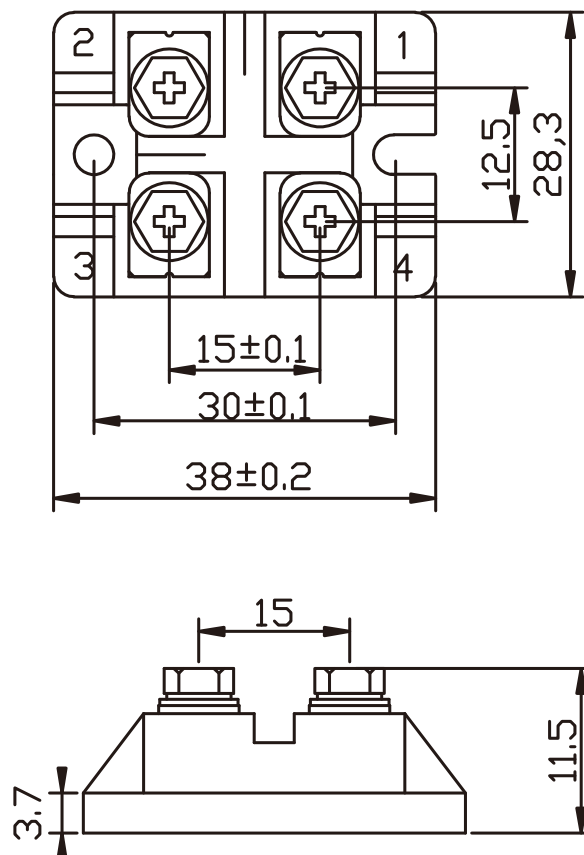
| Symbol         | Parameter                            | Test Conditions                                          | Values      | Unit                          |
|----------------|--------------------------------------|----------------------------------------------------------|-------------|-------------------------------|
| $V_R$          | Maximum D.C. Reverse Voltage         |                                                          | 200         | V                             |
| $V_{RRM}$      | Maximum Repetitive Reverse Voltage   |                                                          | 200         | V                             |
| $I_{F(AV)}$    | Average Forward Current              | $T_C=90^{\circ}\text{C}$ , Per Diode                     | 100         | A                             |
|                |                                      | $T_C=90^{\circ}\text{C}$ , Per Moudle                    | 200         | A                             |
|                |                                      | $T_C=100^{\circ}\text{C}$ , 20KHz, Per Moudle            | 150         | A                             |
| $I_{F(RMS)}$   | RMS Forward Current                  | $T_C=90^{\circ}\text{C}$ , Per Diode                     | 150         | A                             |
| $I_{FSM}$      | Non-Repetitive Surge Forward Current | 1/2 Cycle , 50Hz, Sine                                   | 1500        | A                             |
|                |                                      | 1/2 Cycle , 60Hz, Sine                                   | 1800        | A                             |
| $I^2t$         | $I^2t$ (For Fusing)                  | $T_J=45^{\circ}\text{C}$ , $t=10\text{ms}$ , 50Hz, Sine  | 11250       | $\text{A}^2\text{s}$          |
|                |                                      | $T_J=45^{\circ}\text{C}$ , $t=8.3\text{ms}$ , 60Hz, Sine | 16200       | $\text{A}^2\text{s}$          |
| $P_D$          | Power Dissipation                    |                                                          | 315         | W                             |
| $T_J$          | Junction Temperature                 |                                                          | -40 to +150 | $^{\circ}\text{C}$            |
| $T_{STG}$      | Storage Temperature Range            |                                                          | -40 to +125 | $^{\circ}\text{C}$            |
| $V_{isol}$     | Insulation Test Voltage              | AC, $t=1\text{min}$                                      | 3000        | V                             |
| Torque         | To-Sink                              | Recommended (M4)                                         | 0.7~1.1     | N.m                           |
| Torque         | To-Terminal                          | Recommended (M4)                                         | 0.7~1.1     | N.m                           |
| $R_{\theta C}$ | Thermal Resistance                   | Junction-to-Case                                         | 0.30        | $^{\circ}\text{C} / \text{W}$ |
| Weight         |                                      |                                                          | 38.5        | g                             |

**ELECTRICAL CHARACTERISTICS**

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

| Symbol   | Parameter               | Test Conditions                            | Min. | Typ. | Max. | Unit |
|----------|-------------------------|--------------------------------------------|------|------|------|------|
| $I_{RM}$ | Reverse Leakage Current | $V_R=200\text{V}$                          | --   | --   | 0.5  | mA   |
|          |                         | $V_R=200\text{V}, T_J=125^{\circ}\text{C}$ | --   | --   | 2    | mA   |
| $V_F$    | Forward Voltage         | $I_F=100\text{A}$                          | --   | 0.80 | 0.90 | V    |
|          |                         | $I_F=100\text{A}, T_J=125^{\circ}\text{C}$ | --   | 0.70 | --   | V    |

**Package Outline**



Dimensions (mm)