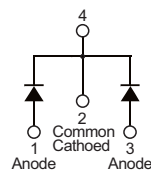


PRODUCT CHARACTERISTICS

| | |
|---------------|------|
| VR(@IC=0.5mA) | 45V |
| VF(@IF=5A) | 0.6V |
| IR(@VR=45V) | 50uA |
| ID | 20A |

Symbol

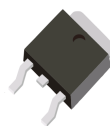


MECHANICAL CHARACTERISTICS

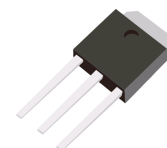
- * Case: Epoxy, Molded
- * Finish: All External Surfaces Corrosion Resistant and Terminal
- * Leads are Readily Solderable
- * Lead Temperature for Soldering Purposes:
260 °C Max. for 10 Seconds

FEATURES

- * Guard Ring for Stress Protection
- * Low Forward Voltage
- * Low Power Loss/High Efficiency
- * High Surge Capacity
- * Low Stored Charge Majority Carrier Conduction
- * Pb Free Packages are Available*



TO-252



TO-251

ORDER INFORMATION

| Order codes | | Package | Packing |
|--------------|----------|---------|------------------|
| Halogen-Free | Halogen | | |
| N/A | MOT2045C | TO-251 | 70 pieces/Tube |
| N/A | MOT2045D | TO-252 | 2500 pieces/reel |

MAIMUM RATINGS (Each Diode Leg)

| Parameter | Symbol | Value | Unit |
|---|----------------|--------------|------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 45 | V |
| Average Rectified Output Current | (Total) | 20 | A |
| | (per Leg) | 10 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Reate Load | I_{FSM} | 200 | A |
| Operating and Storage Temperature Range | T_J, T_{STG} | -55 to + 175 | °C |

ELECTRICAL CHARACTERISTICS

| Characteristic | Symbol | Test Conditions | Min | Typ. | Max | Unit |
|---------------------------------|--------|-----------------------------|-----|------|------|------|
| Peak Repetitive Reverse Voltage | B_V | $I_C=0.5mA, T_J=25^\circ C$ | — | 45 | — | V |
| Forward Voltage Drop | V_F | $I_F=10A, T_J=25^\circ C$ | — | 0.57 | 0.6 | V |
| Leakage Current | I_R | $V_R=45V, T_J=25^\circ C$ | — | — | 0.05 | mA |
| | | $V_R=45V, T_J=125^\circ C$ | — | — | 6 | |

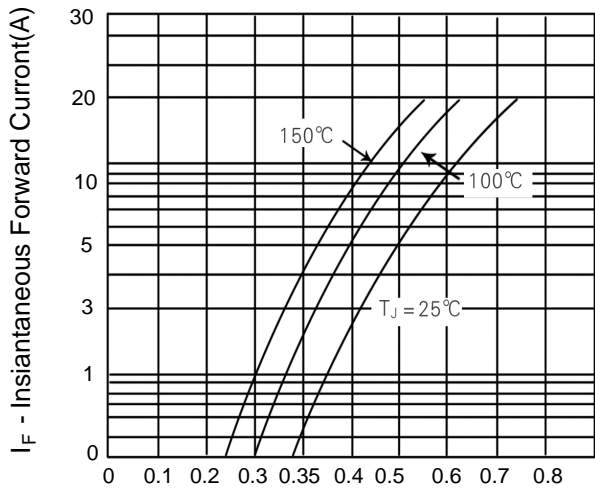


Figure 1. Typical Forward Voltage Per Diode

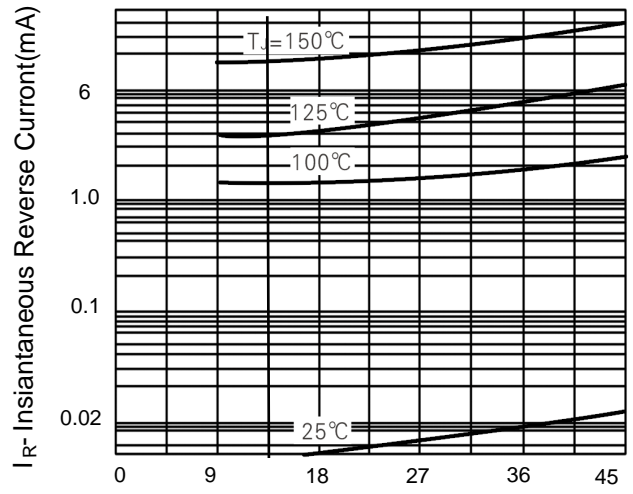


Figure 2. Typical Reverse Current Per Diode

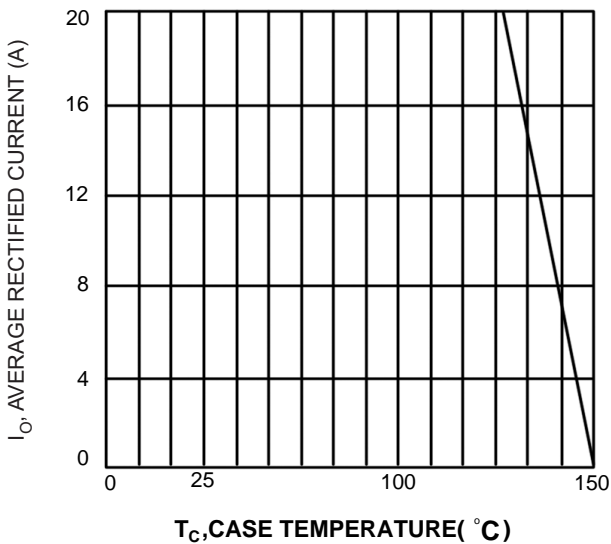


Fig.3 Forward Current Derating Curve

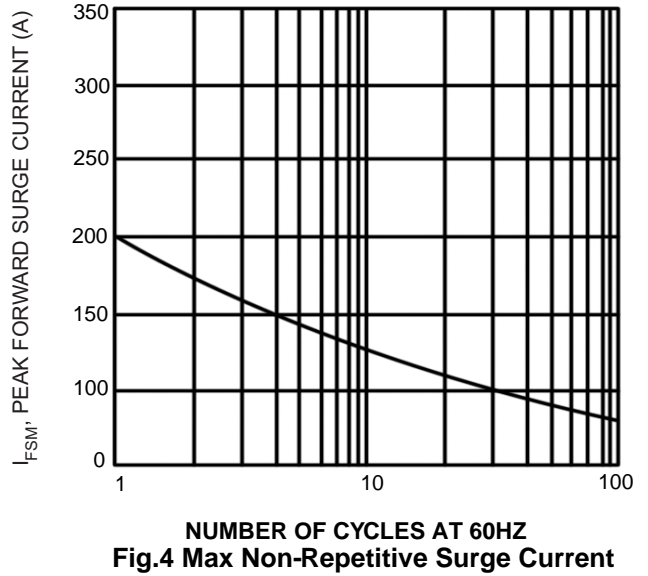
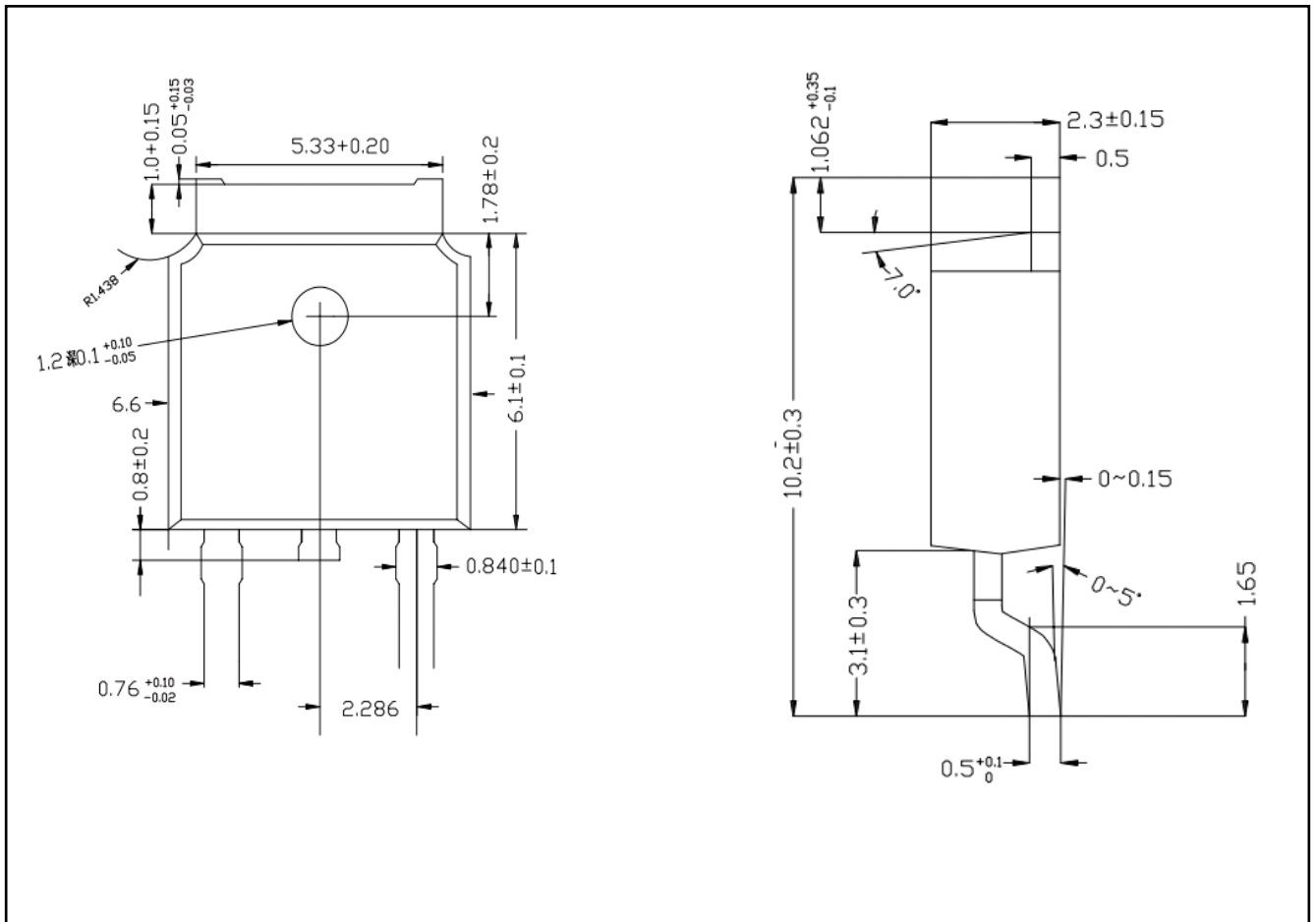


Fig.4 Max Non-Repetitive Surge Current

■ TO-252-2L PACKAGE OUTLINE DIMENSIONS



■ TO-251-3L PACKAGE OUTLINE DIMENSIONS

