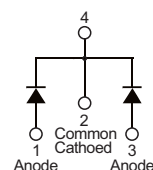


## PRODUCT CHARACTERISTICS

|               |       |
|---------------|-------|
| VR(@IC=0.5mA) | 150V  |
| VF(@IF=5A)    | 0.88V |
| IR(@VR=150V)  | 20uA  |
| ID            | 10A   |

## Symbol

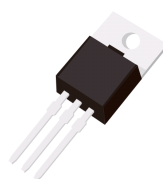


## MECHANICAL CHARACTERISTICS

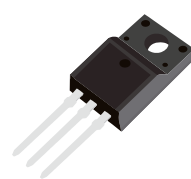
- \* Case: Epoxy, Molded
- \* Finish: All External Surfaces Corrosion Resistant and Terminal
- \* Leads are Readily Solderable
- \* Lead Temperature for Soldering Purposes:  
260 °C Max. for 10 Seconds

## FEATURES

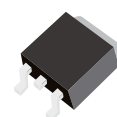
- \* Guard Ring for Stress Protection
- \* Low Forward Voltage
- \* Low Power Loss/High Efficiency
- \* High Surge Capacity
- \* Low Stored Charge Majority Carrier Conduction
- \* Pb Free Packages are Available\*



TO-220



TO-220F



TO-263

## ORDER INFORMATION

| Order codes  |           | Package | Packing         |
|--------------|-----------|---------|-----------------|
| Halogen-Free | Halogen   |         |                 |
| N/A          | MBR10150F | TO-220F | 50 pieces/Tube  |
| N/A          | MBR10150A | TO-220  | 50 pieces/Tube  |
| N/A          | MBR10150E | TO-263  | 800 pieces/reel |

## MAIMUM RATINGS (Each Diode Leg)

| Parameter                                                                                           | Symbol         | Value        | Unit |
|-----------------------------------------------------------------------------------------------------|----------------|--------------|------|
| Peak Repetitive Reverse Voltage                                                                     | $V_{RRM}$      | 15           | V    |
| Average Rectified Output Current                                                                    | (Total)        | 10           | A    |
|                                                                                                     | (per Leg)      | 5            | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single Half Sine-Wave Superimposed on Reate Load | $I_{FSM}$      | 150          | 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 | $B_V$  | $I_C=0.5mA, T_J=25^{\circ}C$ | —   | 160  | —    | V    |
| Forward Voltage Drop            | $V_F$  | $I_F=5A, T_J=25^{\circ}C$    | —   | 0.83 | 0.88 | V    |
| Leakage Current                 | $I_R$  | $V_R=150V, T_J=25^{\circ}C$  | —   | —    | 0.02 | mA   |
|                                 |        | $V_R=150V, T_J=125^{\circ}C$ | —   | —    | 6    |      |

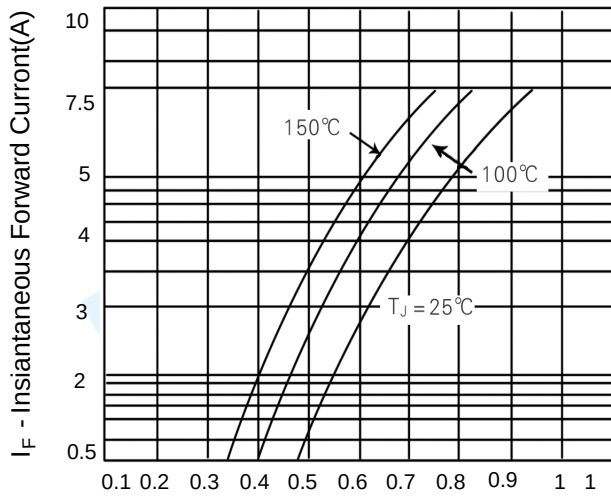


Figure 1. Typical Forward Voltage Per Diode

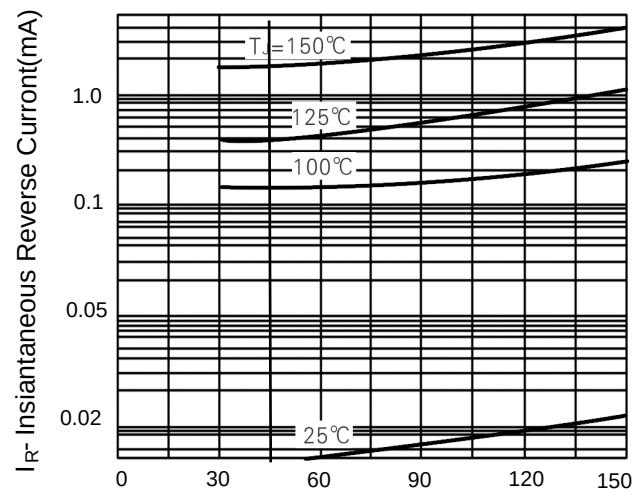


Figure 2. Typical Reverse Current Per Diode

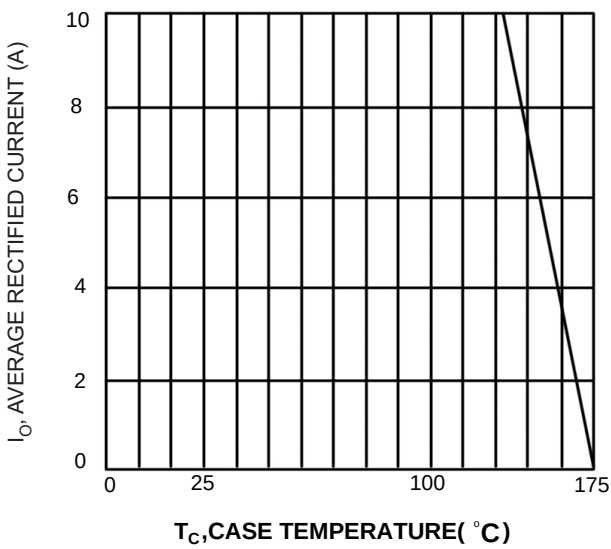


Fig.3 Forward Current Derating Curve

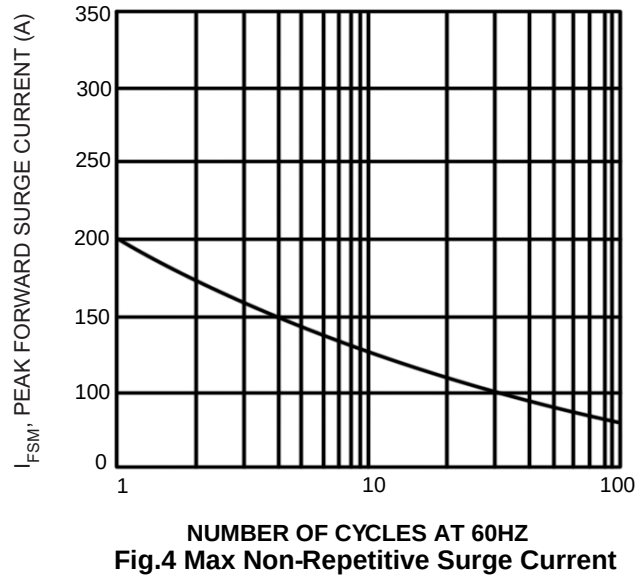
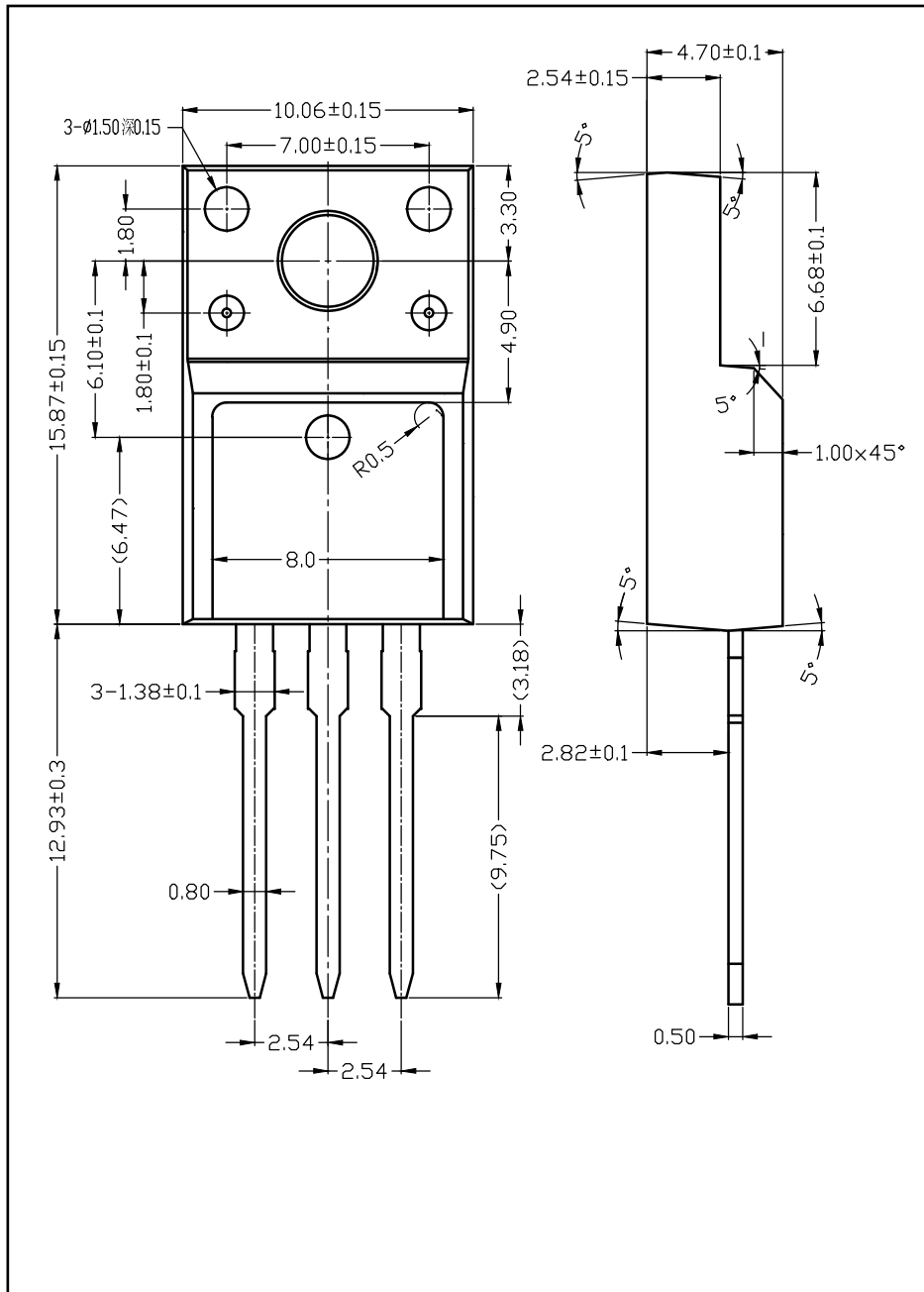
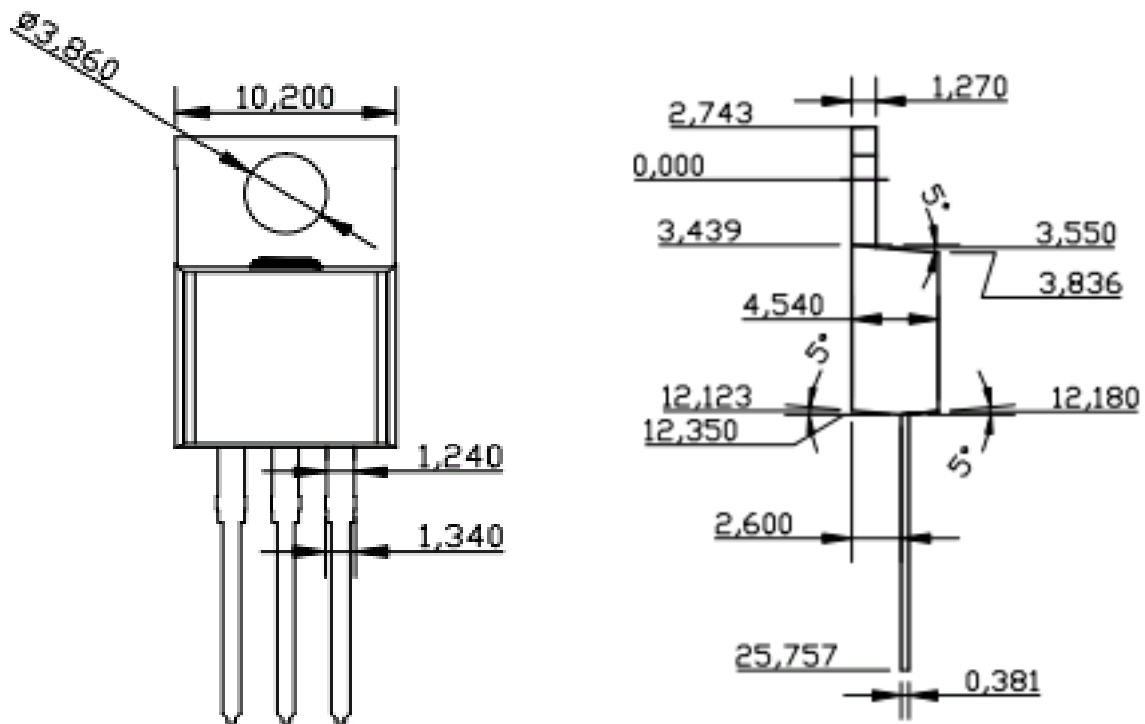


Fig.4 Max Non-Repetitive Surge Current

■ TO-220F-3L PACKAGE OUTLINE DIMENSIONS



■ TO-220-3L PACKAGE OUTLINE DIMENSIONS



■ TO-263-2L PACKAGE OUTLINE DIMENSIONS

