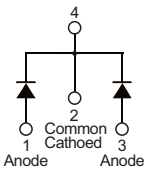
## ■ PRODUCT CHARACTERISTICS

| | |
|---|---|
| VR(@IC=0.5mA) | 100V |
| VF(@IF=30A) | 0.85V |
| IR(@VR=100V) | 50uA |
| ID | 60A |

Symbol

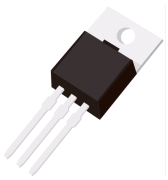



## ■ MECHANICAL CHARACTERISTICS

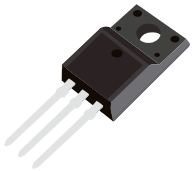
* Case: Epoxy, Molded
* Finish: All External Surfaces Corrosion Resistant and Terminal
* Leads are Readily Solderable
* Lead Temperature for Soldering Purposes:
  260 °C Max. for 10 Seconds

## ■ FEATURES

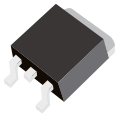
* Guard Ring for Stress Protection
* Low Forward Voltage
* Low Power Loss/High Efficiency
* High Surge Capacity
* Low Stored Charge Majority Carrier Conduction
* Pb Free Packages are Available*



TO-220



TO-220F



TO-263

## ■ ORDER INFORMATION

| Order codes | | Package | Packing |
|---|---|---|---|
| Halogen-Free | Halogen | | |
| N/A | MBR60100F | TO-220F | 50 pieces/Tube |
| N/A | MBR60100A | TO-220 | 50 pieces/Tube |
| N/A | MBR60100E | TO-263 | 800 pieces/reel |

## ■MAIMUM RATINGS (Each Diode Leg)

| Parameter | | Symbol | Value | Unit |
|---|---|---|---|---|
| Peak Repetitive Reverse Voltage | | $V_{RRM}$ | 100 | V |
| Average Rectified Output Current | (Total) | $I_O$ | 60 | A |
| | (per Leg) | | 30 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Reate Load | | $I_{FSM}$ | 500 | A |
| Operationg 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°C | – | 110 | – | V |
| Forward Voltage Drop | $V_F$ | $I_F$=30A,$T_J$=25°C | – | 0.83 | 0.85 | V |
| Leakage Current | $I_R$ | $V_R$=100V, $T_J$=25°C | – | – | 0.05 | mA |
| | | $V_R$=100V, $T_J$=125°C | – | – | 6 | |

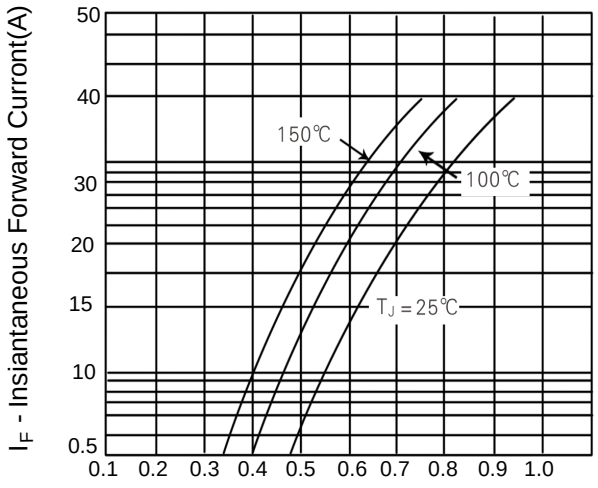



**Figure 1. Typical Forward Voltage Per Diode**

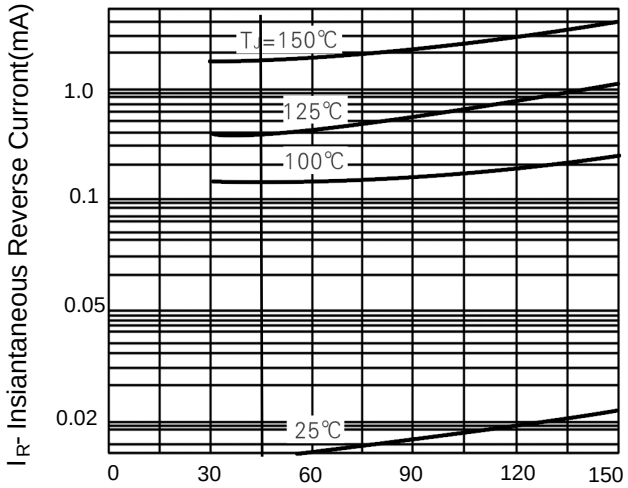
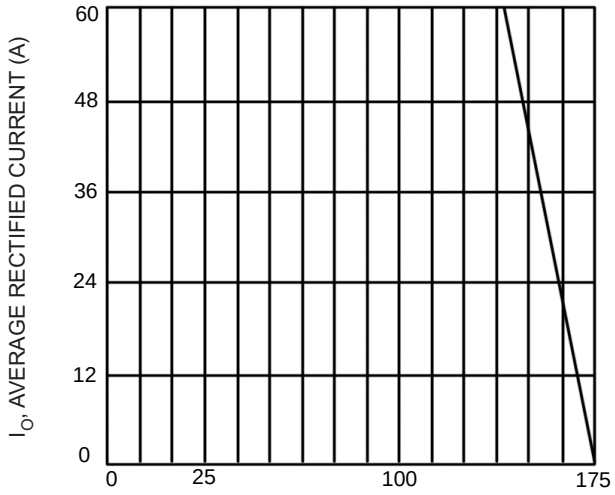
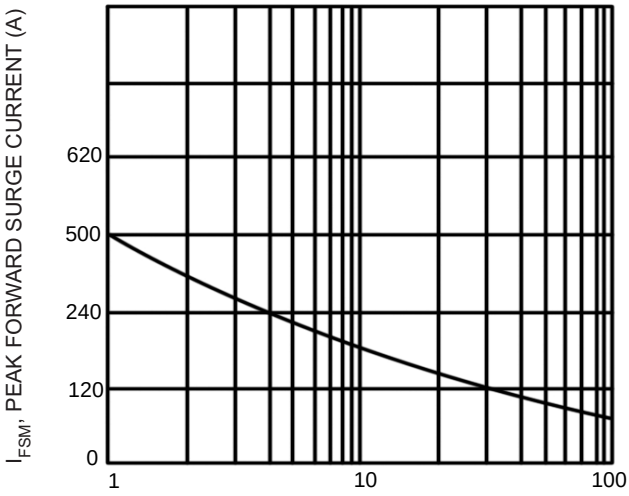



**Figure 2. Typical Reverse Current Per Diode**

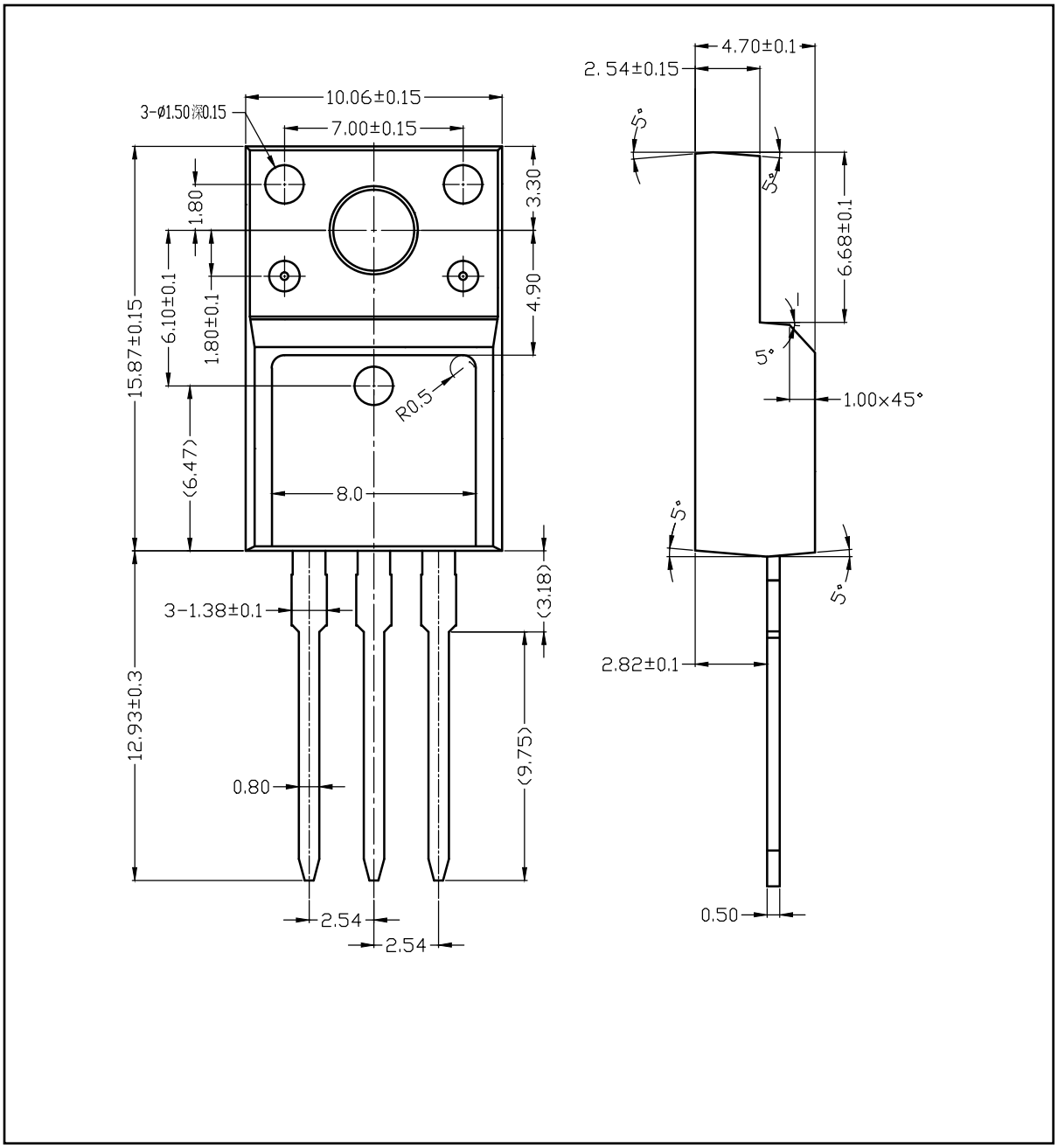



**$T_C$,CASE TEMPERATURE( ˚C)**
**Fig.3 Forward Current Derating Curve**

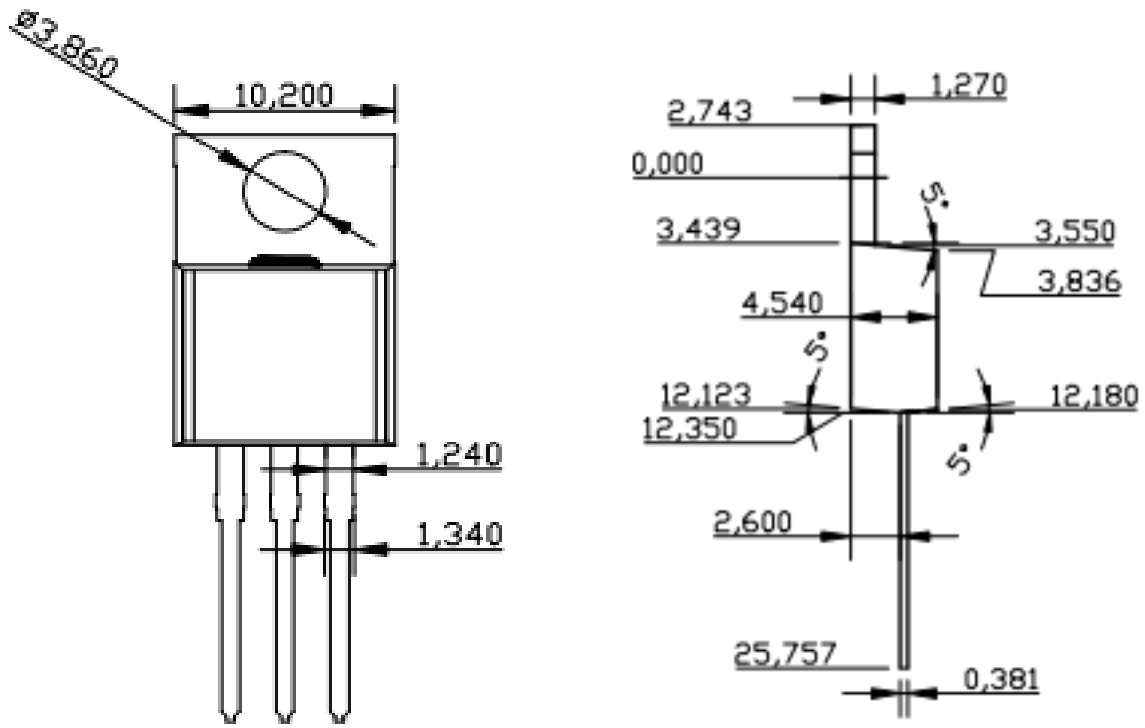



**NUMBER OF CYCLES AT 60HZ**
**Fig.4 Max Non-Repetitive Surge Current**

■ TO-220F-3L PACKAGE OUTLINE DIMENSIONS



■ TO-220-3L PACKAGE OUTLINE DIMENSIONS



■ TO-263-2L PACKAGE OUTLINE DIMENSIONS