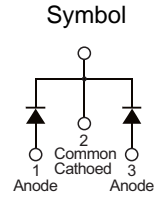


### ■ PRODUCT CHARACTERISTICS

|                |       |
|----------------|-------|
| VR(@IC=0.5mA)  | 150V  |
| VF(Typ@IF=15A) | 0.88V |
| IR(@VR=150V)   | 50uA  |
| ID             | 30A   |

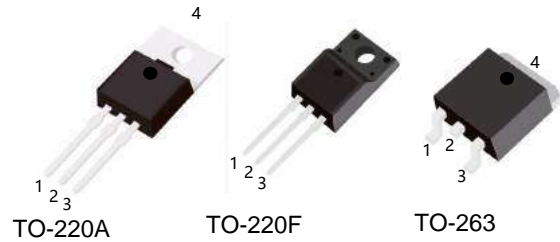


### ■ MECHANICAL CHARACTERISTICS

- \* Case: epoxy,molded
- \* Finish:all external surfaces corrosion resistant and terminal
- \* Leads are readily solderable
- \* Leads 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 package are available



### ■ ORDER INFORMATION

| Order codes  |           | Package | Packing        |
|--------------|-----------|---------|----------------|
| Halogen-free | Halogen   |         |                |
| N/A          | MBR30150A | TO-220  | 50pieces/Tube  |
| N/A          | MBR30150F | TO-220F | 50pieces/Tube  |
| N/A          | MBR30150E | TO-263  | 800pieces/Reel |

### ■ MAXIMUM RATINGS (Each diode leg)

| Parameter  | Symbol         | Value       | Unit |
|--|----------------|-------------|------|
| Peak repetitive reverse voltage  | $V_{RRM}$      | 150         | V    |
| Average rectified output current   | Total          | 30          | A    |
|  | Per leg        | 15          | A    |
| Non-repetitive peak forward surge current 8.3ms single half sine-wave superimposed on reate load | $I_{FSM}$      | 300         | A    |
| Operating and storage temperature range  | $T_J, T_{STG}$ | -55 to +175 | °C   |

### ■ ELECTRICAL CHARACTERISTICS

| Parameter                       | Symbol | Conditions                  | Min | Typ  | Max  | Unit |
|---------------------------------|--------|-----------------------------|-----|------|------|------|
| Peak repetitive reverse voltage | $B_V$  | $I_C=0.5mA, T_J=25^\circ C$ | 150 | -    | -    | V    |
| Forward voltage drop            | $V_F$  | $I_F=15AT_J=25^\circ C$     | -   | 0.88 | 0.93 | V    |
| Leakage current                 | $I_R$  | $V_R=150V, T_J=25^\circ C$  | -   | -    | 0.05 | mA   |
|                                 |        | $V_R=150V, T_J=125^\circ C$ | -   | -    | 6    |      |

■ TYPICAL CHARACTERISTICS

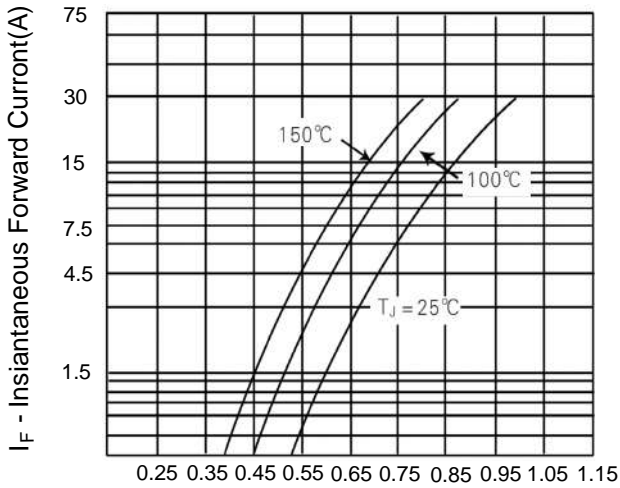


Figure 1. Typical Forward Voltage Per Diode

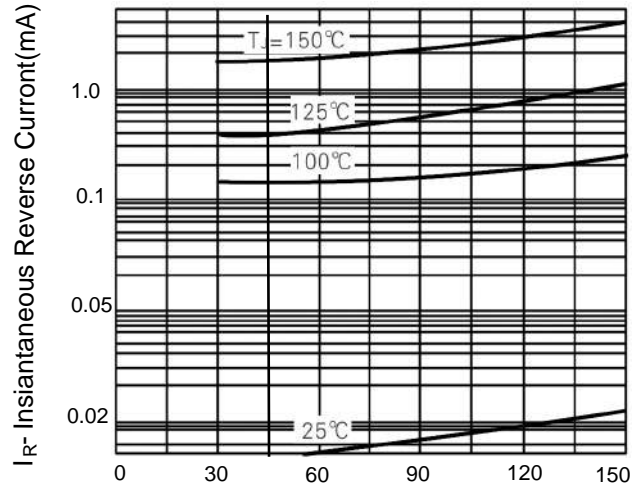


Figure 2. Typical Reverse Current Per Diode

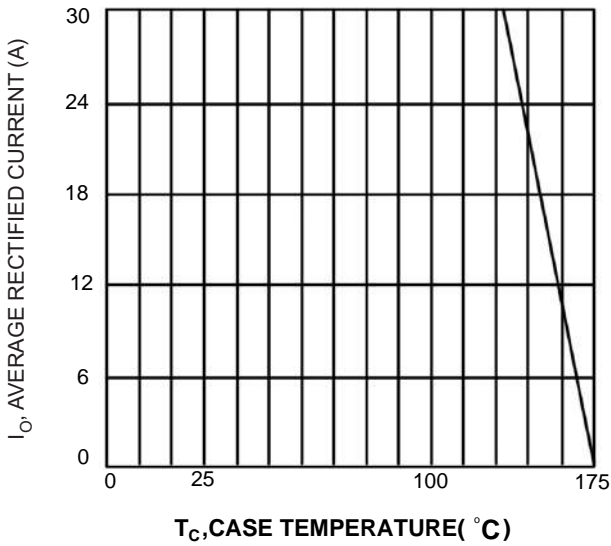


Fig.3 Forward Current Derating Curve

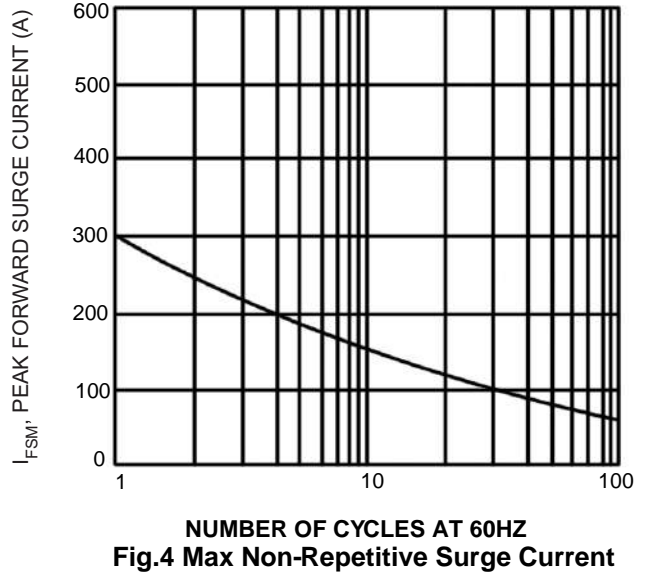
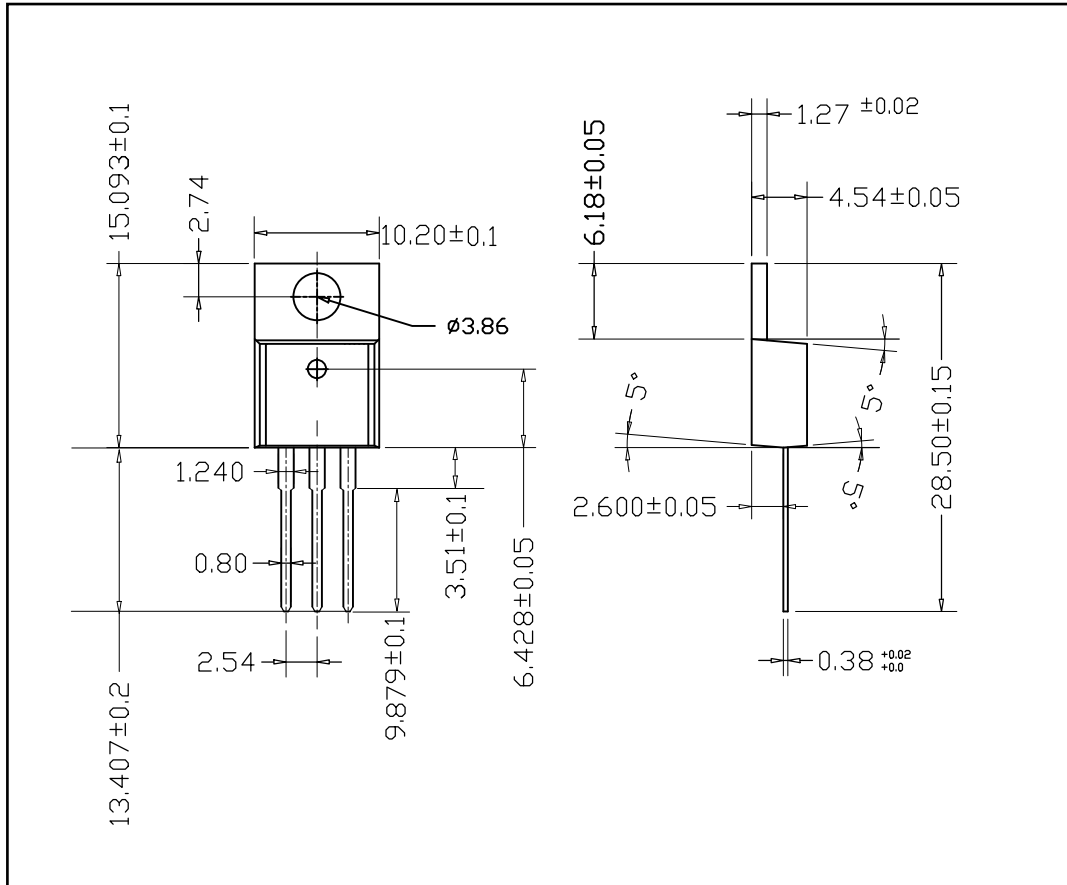


Fig.4 Max Non-Repetitive Surge Current



### ■ TO-220 PACKAGE OUTLINE DIMENSIONS



■ TO-263 PACKAGE OUTLINE DIMENSIONS

