

### PRODUCT CHARACTERISTICS

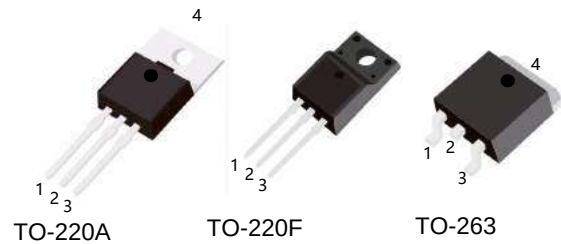
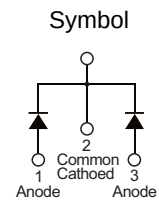
|                |       |
|----------------|-------|
| VR(@IC=0.5mA)  | 60V   |
| VF(Typ@IF=15A) | 0.72V |
| IR(@VR=60V)    | 50uA  |
| ID             | 30A   |

### 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          | MBR3060A | TO-220  | 50pieces/Tube  |
| N/A          | MBR3060F | TO-220F | 50pieces/Tube  |
| N/A          | MBR3060E | TO-263  | 800pieces/Reel |

### MAXIMUM RATINGS (Each diode leg)

| Parameter                                                                                        | Symbol         | Value        | Unit |
|--------------------------------------------------------------------------------------------------|----------------|--------------|------|
| Peak repetitive reverse voltage                                                                  | $V_{RRM}$      | 60           | V    |
| Average rectified output current                                                                 | $I_o$          | 30           | A    |
|                                                                                                  |                | 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 | $B_V$  | $I_C=0.5mA, T_J=25^{\circ}C$ | 60  | -    | -    | V    |
| Forward voltage drop            | $V_F$  | $I_F=15A, T_J=25^{\circ}C$   | -   | 0.72 | 0.75 | V    |
| Leakage current                 | $I_R$  | $V_R=60V, T_J=25^{\circ}C$   | -   | -    | 0.05 | mA   |
|                                 |        | $V_R=60V, T_J=125^{\circ}C$  | -   | -    | 6    |      |

### ■ TYPICAL CHARACTERISTICS

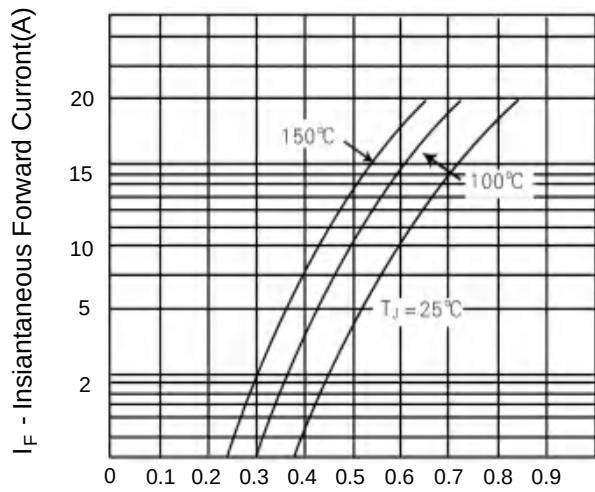


Figure 1. Typical Forward Voltage Per Diode

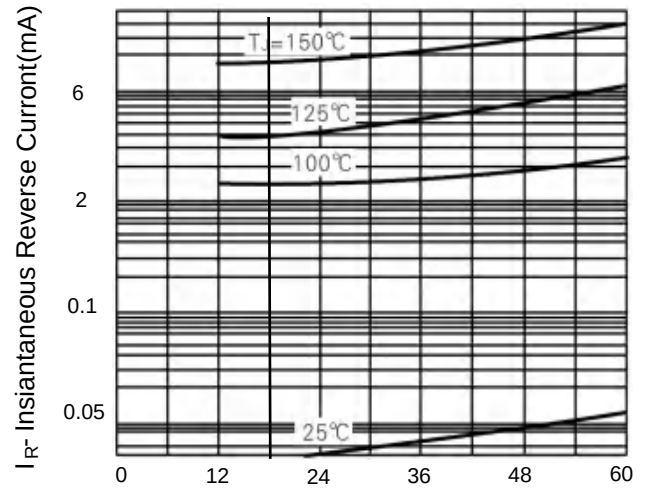


Figure 2. Typical Reverse Current Per Diode

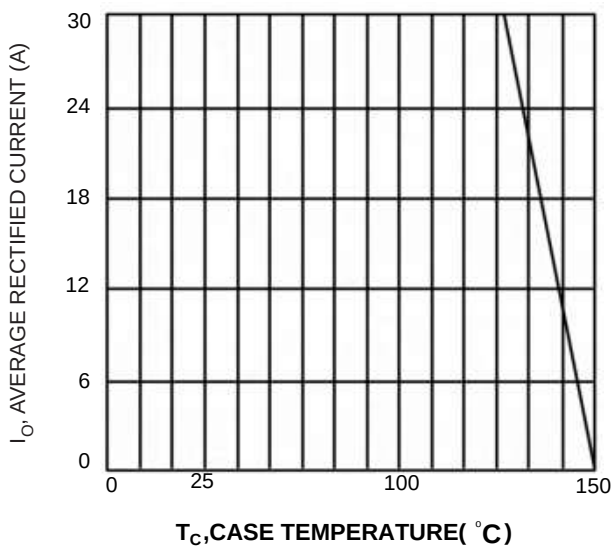


Fig.3 Forward Current Derating Curve

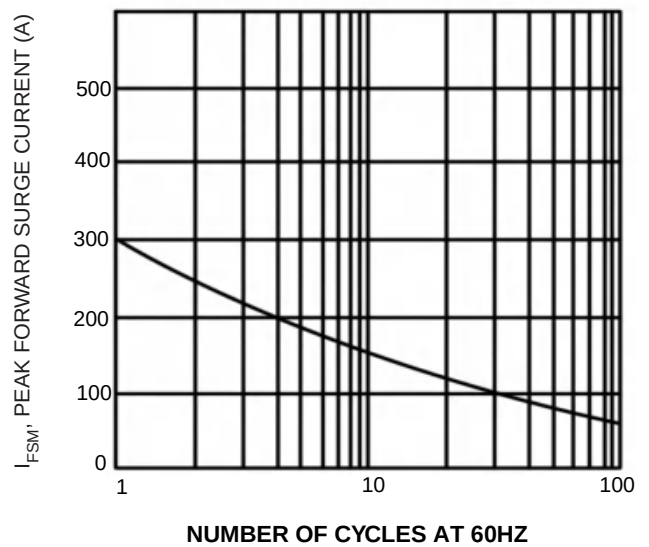
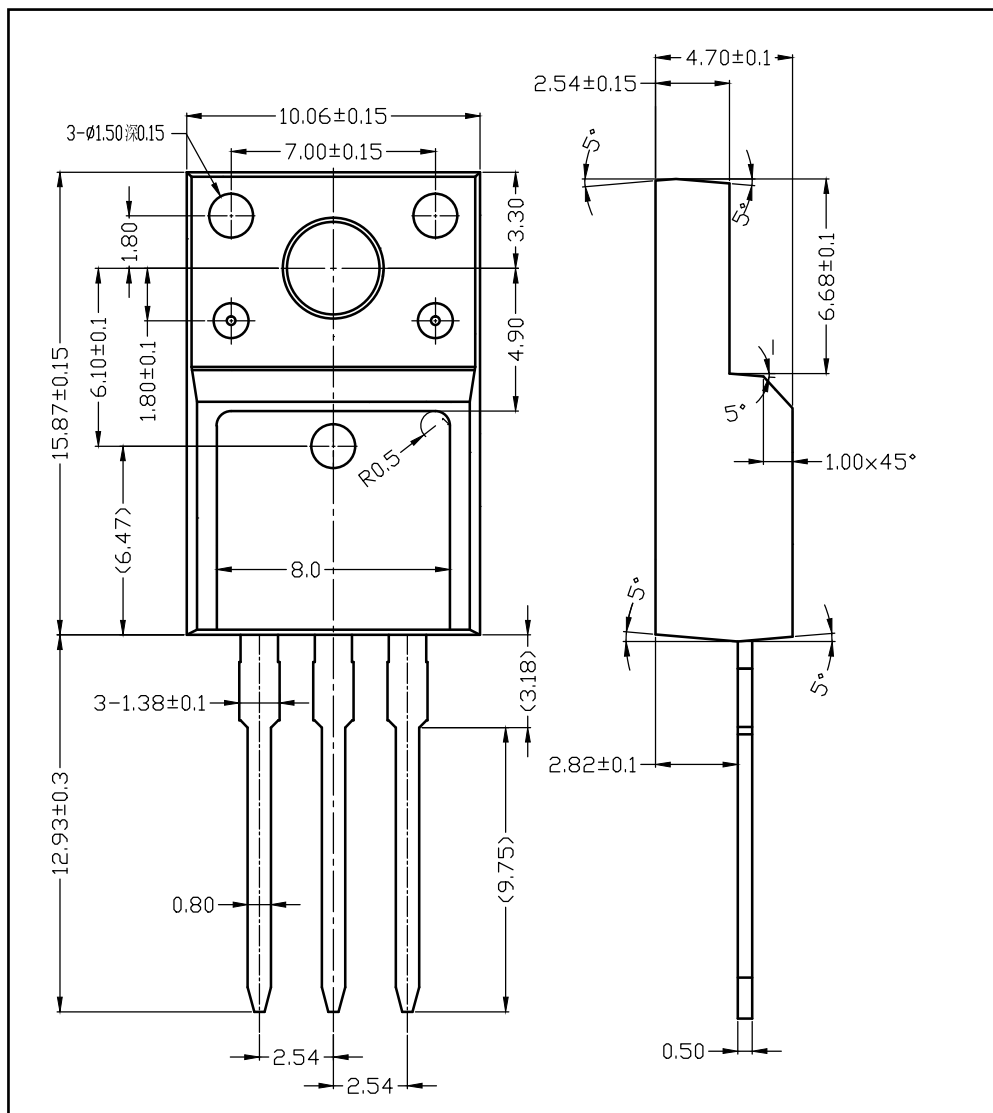
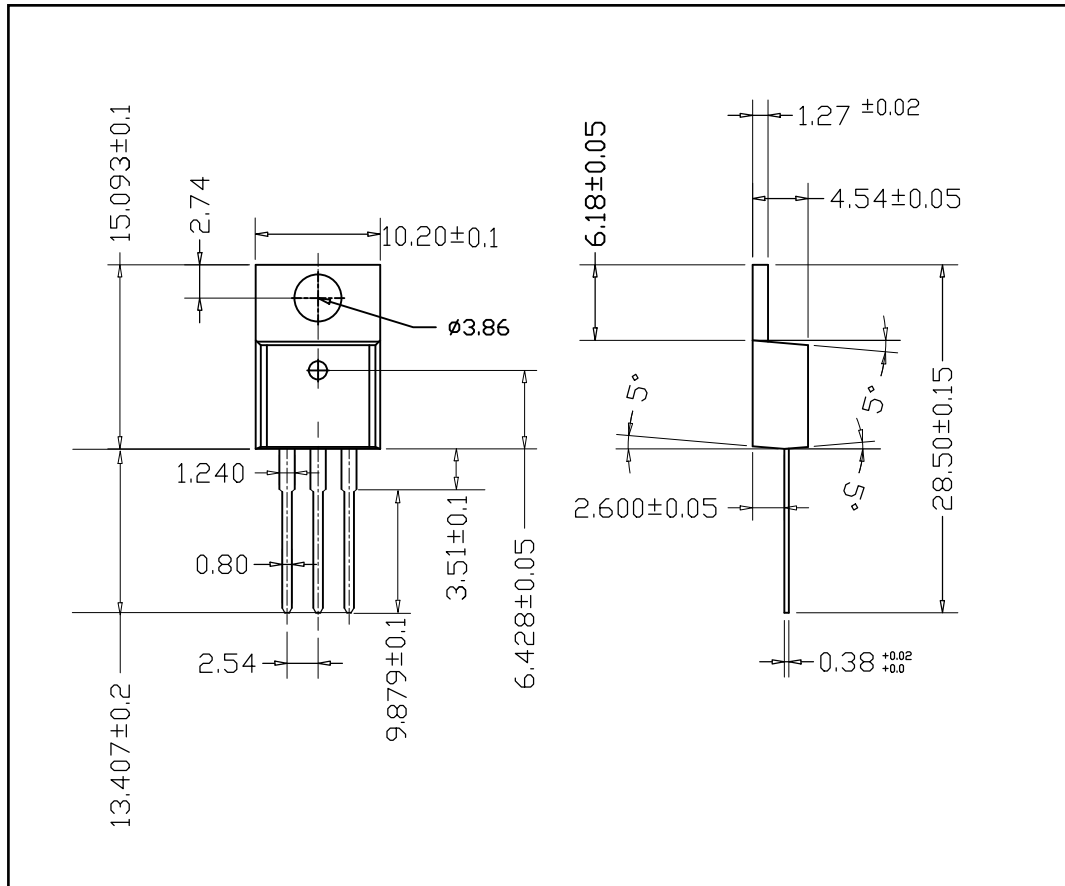


Fig.4 Max Non-Repetitive Surge Current

### ■ TO-220F PACKAGE OUTLINE DIMENSIONS



### ■ TO-220 PACKAGE OUTLINE DIMENSIONS



### ■ TO-263 PACKAGE OUTLINE DIMENSIONS

