

## FEATURES

- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 175°C Operating Junction Temperature
- High Temperature Glass Passivated Junction

## MECHANICAL CHARACTERISTICS

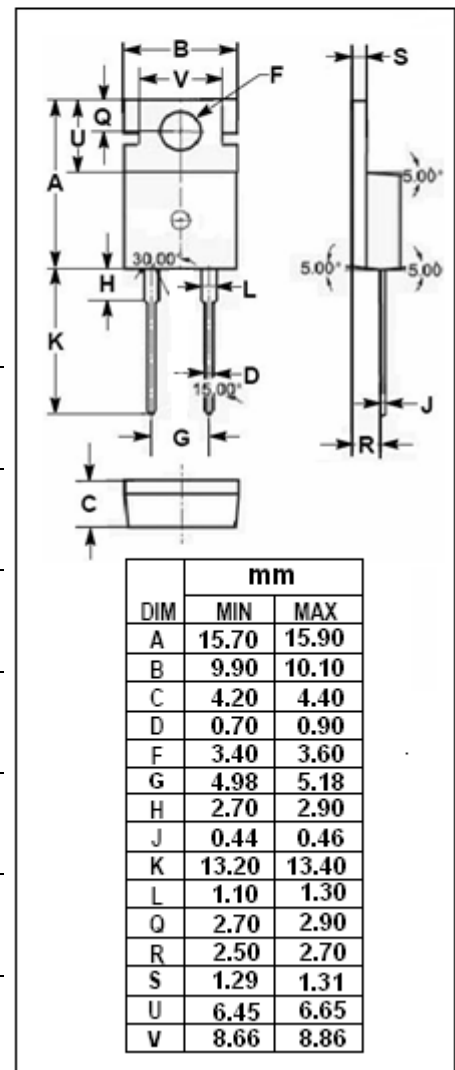
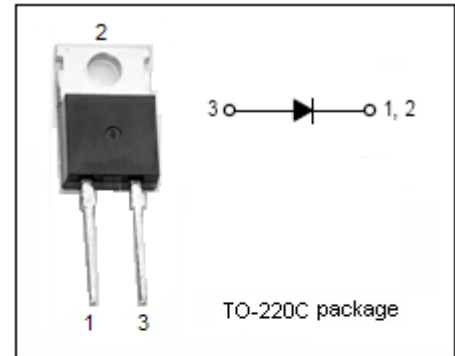
- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds

## APPLICATIONS

- Designed for use in switching power supplies, inverters and as free wheeling diodes.

## ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

| SYMBOL                          | PARAMETER                                                                                                  | VALUE   | UNIT |
|---------------------------------|------------------------------------------------------------------------------------------------------------|---------|------|
| $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                     | 650     | V    |
| $I_{F(AV)}$                     | Average Rectified Forward Current<br>(Rated $V_R$ )                                                        | 15      | A    |
| $I_{FRM}$                       | Peak Repetitive Forward Current<br>(Rated $V_R$ , Square Wave, 20kHz)                                      | 30      | A    |
| $I_{FSM}$                       | Nonrepetitive Peak Surge Current<br>(Surge applied at rated load conditions half-wave, single phase, 60Hz) | 150     | A    |
| $T_J$                           | Junction Temperature                                                                                       | -65~175 | °C   |
| $T_{stg}$                       | Storage Temperature Range                                                                                  | -65~175 | °C   |



**THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                            | MAX | UNIT          |
|---------------|--------------------------------------|-----|---------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.5 | $^{\circ}C/W$ |

**ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}C$ )** (Pulse Test: Pulse Width=300  $\mu$  s, Duty Cycle $\leq$ 2%)

| SYMBOL   | PARAMETER                             | CONDITIONS                       | MAX  | UNIT    |
|----------|---------------------------------------|----------------------------------|------|---------|
| $V_F$    | Maximum Instantaneous Forward Voltage | $I_F=15A$                        | 1.68 | V       |
| $I_R$    | Maximum Instantaneous Reverse Current | $V_{RRM}=600V$                   | 5    | $\mu A$ |
| $t_{rr}$ | Maximum Reverse Recovery Time         | $I_F=0.5A, I_R=1A, I_{rr}=0.25A$ | 60   | ns      |