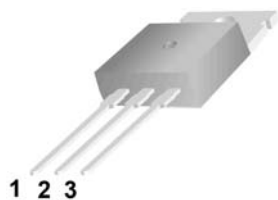


### MUR2005CT-MUR2060CT

#### Features:

- ☐ High surge capacity
- ☐ Low Forward Voltage Drop.
- ☐ High Current Capability.
- ☐ Super Fast Switching Speed For High Efficiency

TO-220



1. Anode 2. Cathode 3. Anode

#### Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

| Parameter                                                                                                     | Symbol          | MUR 2005CT  | MUR 2010CT | MUR 2015CT | MUR 2020CT | MUR 2030CT | MUR 2040CT | MUR 2060CT | Unit |
|---------------------------------------------------------------------------------------------------------------|-----------------|-------------|------------|------------|------------|------------|------------|------------|------|
| Maximum recurrent peak reverse voltage                                                                        | $V_{RRM}$       | 50          | 100        | 150        | 200        | 300        | 400        | 600        | V    |
| Maximum RMS Voltage                                                                                           | $V_{RMS}$       | 35          | 70         | 105        | 140        | 210        | 280        | 420        | V    |
| Maximum DC Blocking Voltage                                                                                   | $V_{R(DC)}$     | 50          | 100        | 150        | 200        | 300        | 400        | 600        | V    |
| Average Rectified Forward Current<br>Total Device, (Rated $V_F$ ),                                            | $I_{F(AV)}$     | 20          |            |            |            |            |            |            | A    |
| Nonrepetitive Peak Surge Current(Surge<br>applied at rated load conditions half wave,<br>single phase, 60 Hz) | $I_{FSM}$       | 200         |            |            |            |            |            |            | A    |
| Operating Junction Temperature and Storage<br>Temperature                                                     | $T_J, T_{stg}$  | -55 to +155 |            |            |            |            |            |            | °C   |
| Maximum Thermal Resistance,<br>Junction-to-Case                                                               | $R_{\theta JC}$ | 3.0         |            |            |            | 2.0        |            |            | °C/W |

#### ELECTRICAL CHARACTERISTICS

| Parameter                                                                                                                                 | Symbol          | MUR 2005CT     | MUR 2010CT | MUR 2015CT | MUR 2020CT | MUR 2030CT   | MUR 2040CT | MUR 2060CT   | Unit |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|------------|------------|------------|--------------|------------|--------------|------|
| Forward Voltage (I <sub>F</sub> =20A, T <sub>C</sub> = 25°C)<br>(Note 1) (I <sub>F</sub> =20 A, T <sub>C</sub> = 125°C)                   | V <sub>F</sub>  | 0.975<br>0.895 |            |            |            | 1.30<br>1.10 |            | 1.70<br>1.50 | V    |
| Maximum Instantaneous Reverse Current<br>(Note 1) (Rated DC Voltage, T <sub>C</sub> = 25°C)<br>(Rated DC Voltage, T <sub>C</sub> = 125°C) | I <sub>R</sub>  | 5<br>250       |            |            |            | 10<br>500    |            |              | μ A  |
| Maximum Reverse Recovery Time<br>(I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>REC</sub> = 0.25 A)                              | T <sub>RR</sub> | 35             |            |            |            |              |            |              | ns   |

Note 1.Pulse Test: Pulse Width = 300  $\mu$ s, Duty Cycle  $\leq 2.0\%$

## Typical Characteristics

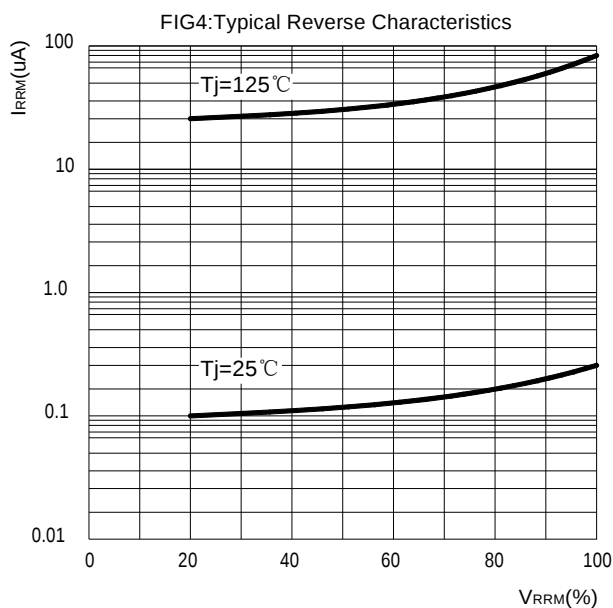
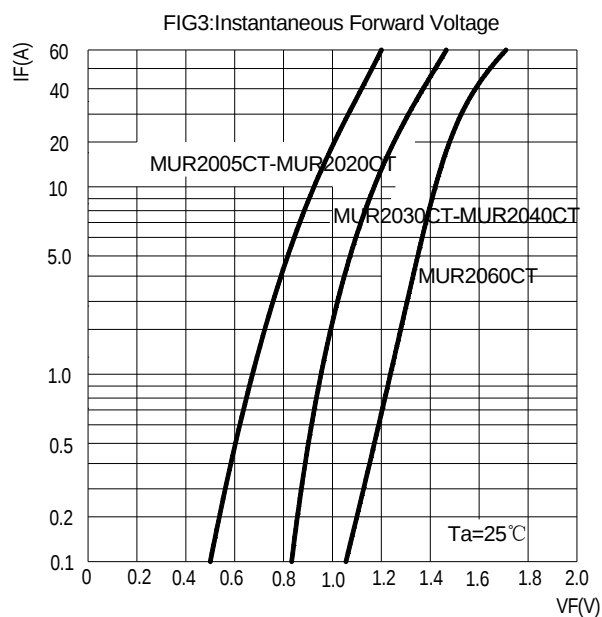
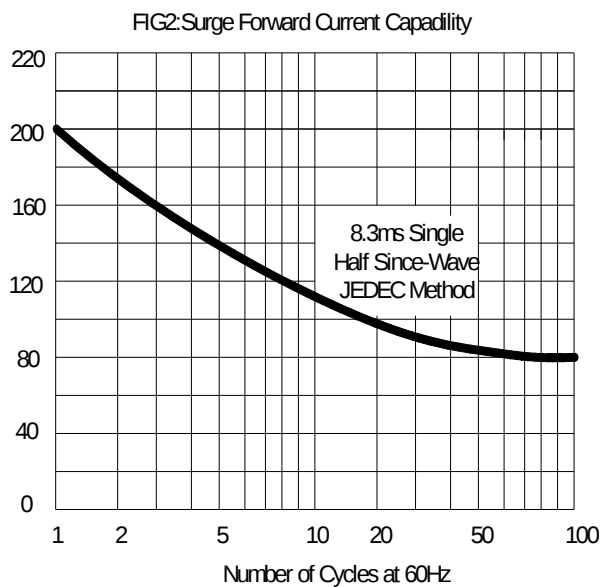
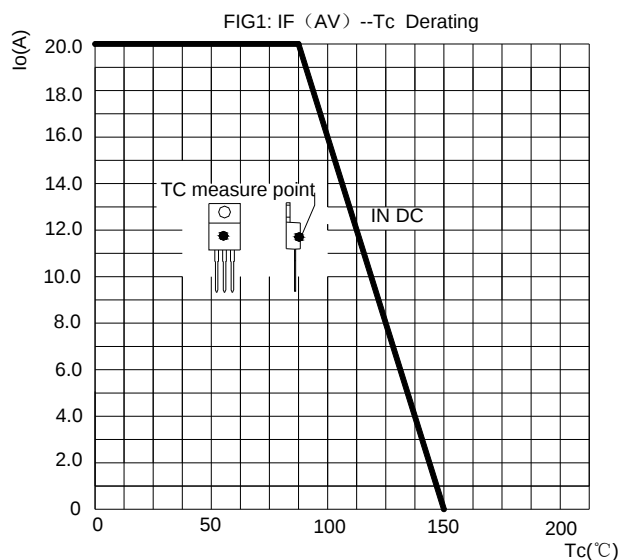
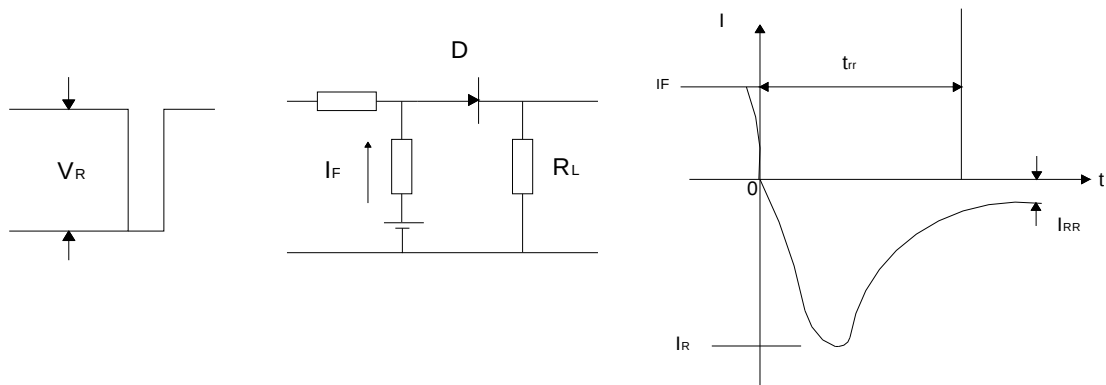
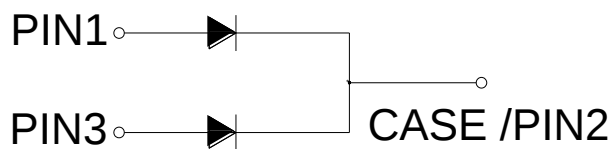
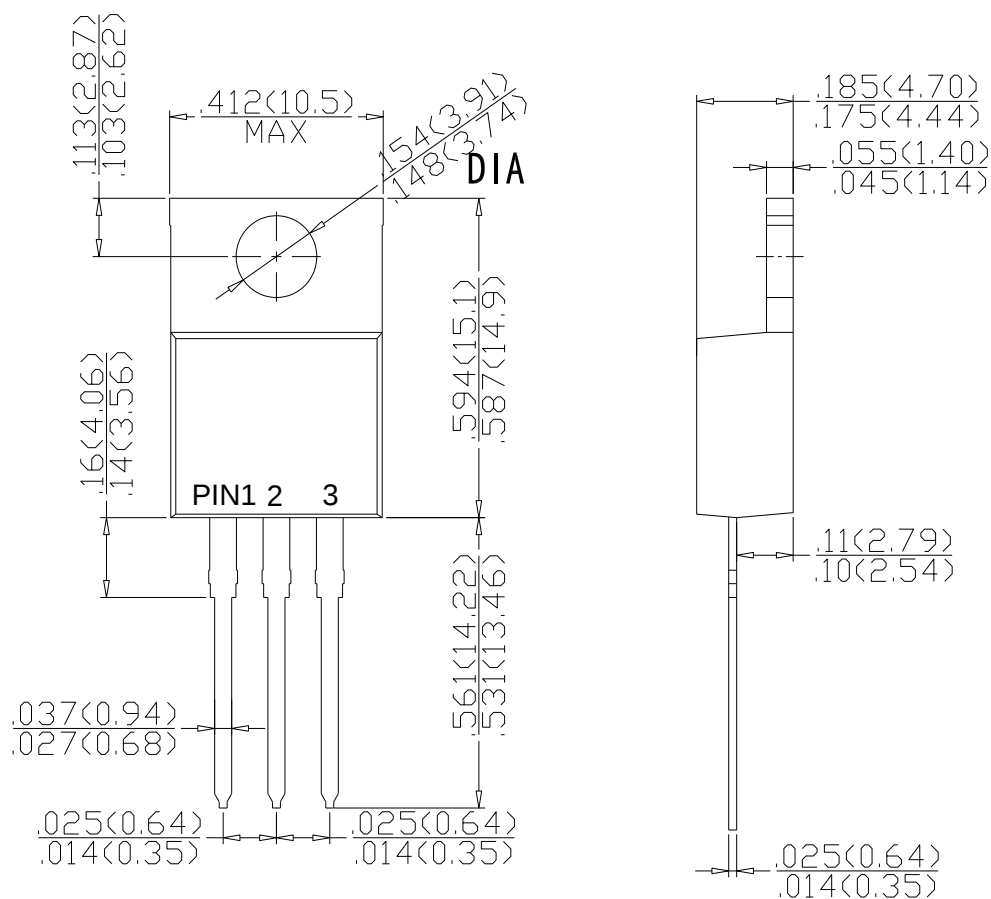


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



Package Dimension

TO-220



Dimensions in inches and (millimeters)