

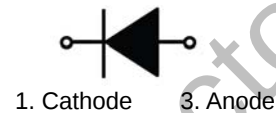
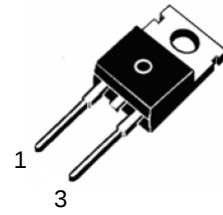


## MUR2005-MUR2060

### Features:

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

TO-220 -2L



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

| Parameter                                                                                                     | Symbol          | MUR 2005    | MUR 2010 | MUR 2015 | MUR 2020 | MUR 2030 | MUR 2040 | MUR 2060 | 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 +150 |          |          |          |          |          |          | °C   |
| Maximum Thermal Resistance,<br>Junction-to-Case                                                               | $R_{\theta JC}$ | 3.0         |          |          |          | 2.0      |          |          | °C/W |

### ELECTRICAL CHARACTERISTICS

| Parameter                                                                                                                                                  | Symbol          | MUR<br>2005    | MUR<br>2010 | MUR<br>2015 | MUR<br>2020 | MUR<br>2030  | MUR<br>2040 | MUR<br>2060  | Unit |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|-------------|-------------|-------------|--------------|-------------|--------------|------|
| Forward Voltage<br>(Note 1) (I <sub>F</sub> = 20A, T <sub>C</sub> = 25°C)<br>(I <sub>F</sub> = 20 A, T <sub>C</sub> = 125°C)                               | V <sub>F</sub>  | 0.975<br>0.895 |             |             |             | 1.30<br>1.00 |             | 1.50<br>1.20 | 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> = 1.0 A, di/dt = 50 A/μ s)<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<br>25       |             |             |             |              |             |              | ns   |

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

## Typical Characteristics

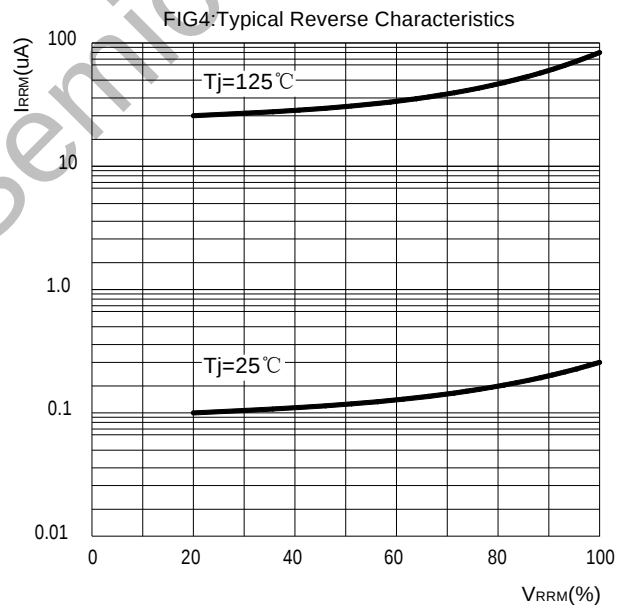
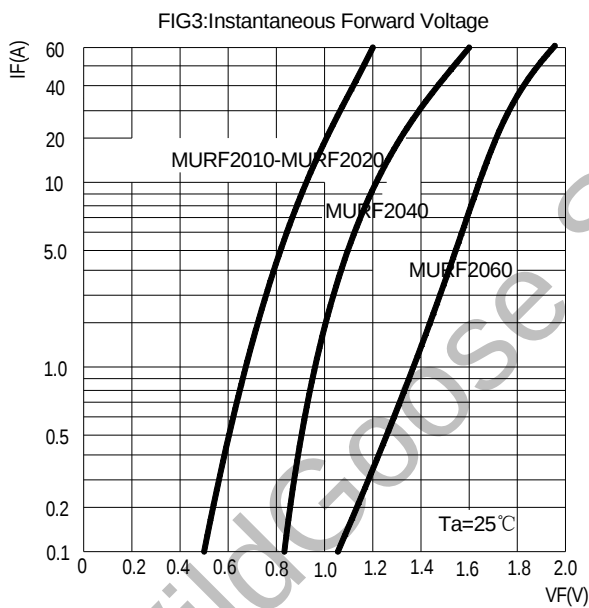
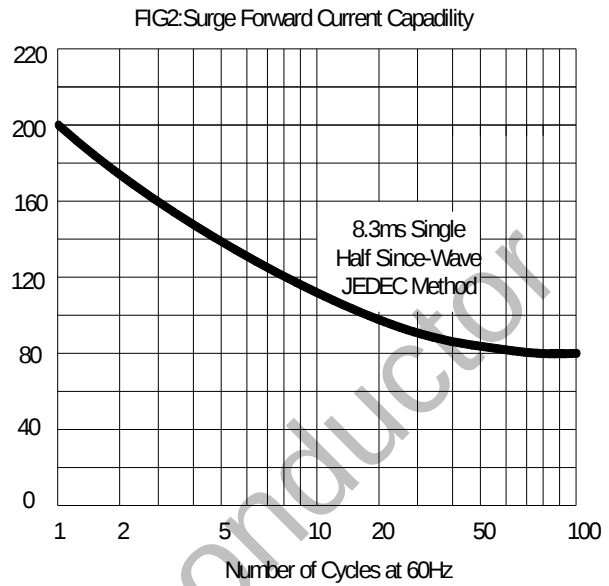
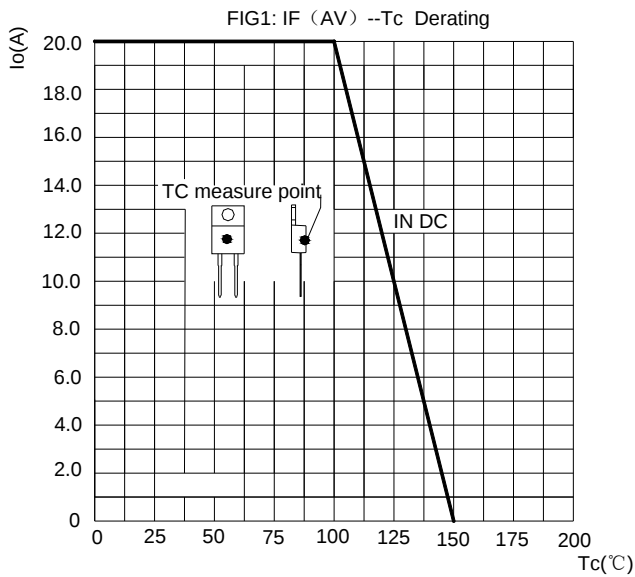
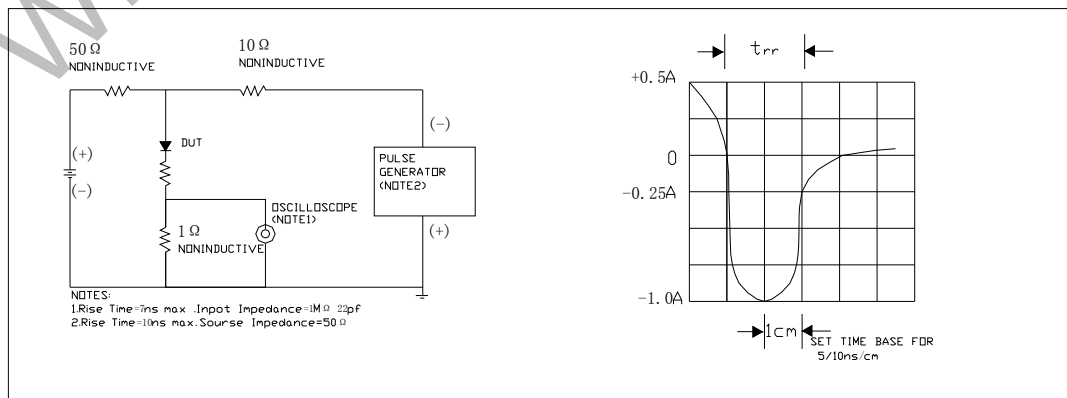


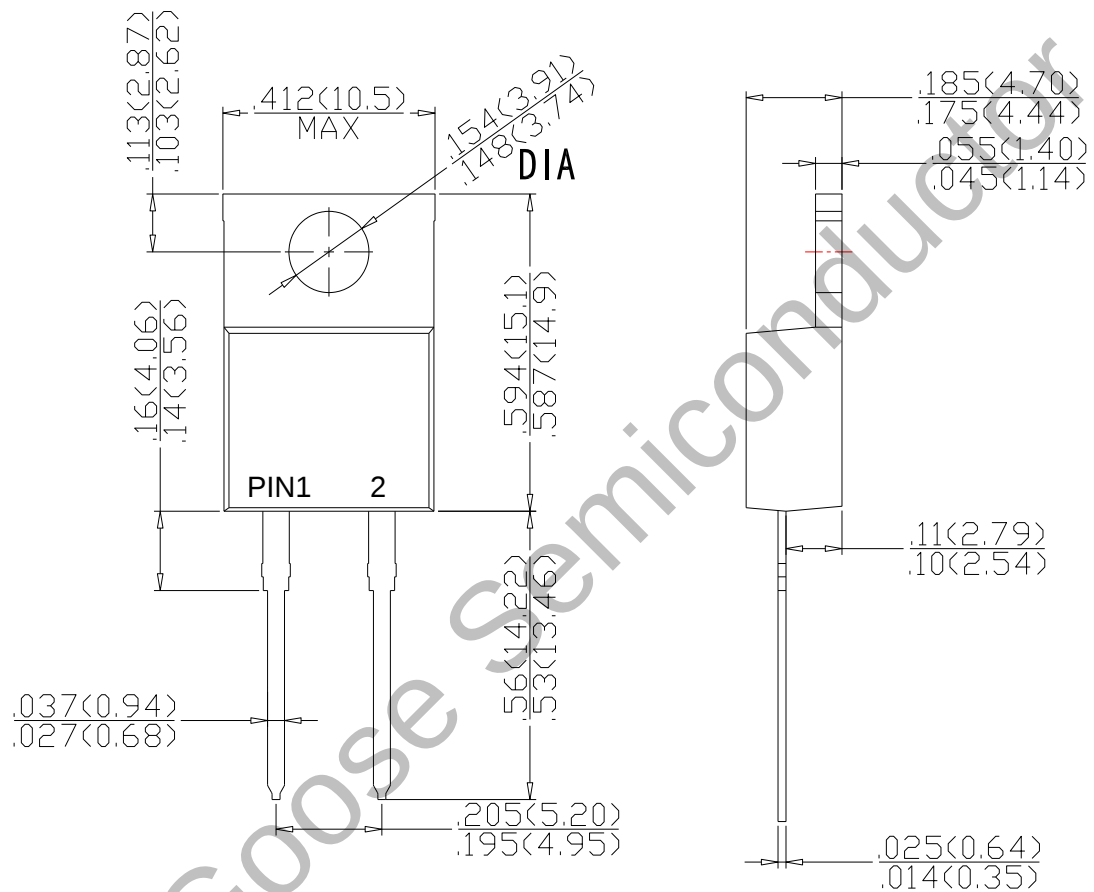
Diagram of circuit and Testing wave form of reverse recovery time



**Package Dimension**

**TO-220 -2L**

Unit: mm



Dimensions in inches and (millimeters)