

# MURF1005-MURF1060

## 10 Amps Super Fast Recovery

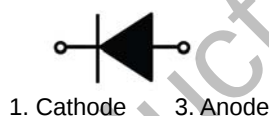
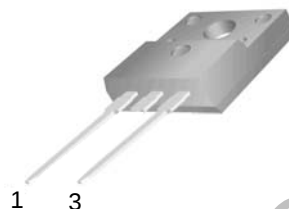


### MURF1005 – MURF1060

#### Features:

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

TO-220F -2L



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

| Parameter                                                                                                     | Symbol          | MUR F1005   | MUR F1010 | MUR F1015 | MUR F1020 | MUR F1030 | MUR F1040 | MUR F1060 | 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 $V_R$ )                                             | $I_{F(AV)}$     | 10          |           |           |           |           |           |           | A    |
| Nonrepetitive Peak Surge Current(Surge<br>applied at rated load conditions half wave,<br>single phase, 60 Hz) | $I_{FSM}$       | 125         |           |           |           |           |           |           | A    |
| Operating Junction Temperature and Storage<br>Temperature                                                     | $T_J, T_{stg}$  | -55 to +150 |           |           |           |           |           |           | °C   |
| Maximum Thermal Resistance,<br>Junction-to-Case                                                               | $R_{\theta JC}$ | 2.0         |           |           |           |           |           |           | °C/W |

#### ELECTRICAL CHARACTERISTICS

| Parameter                                                                                                                  | Symbol   | MUR F1005 | MUR F1010 | MUR F1015 | MUR F1020 | MUR F1030 | MUR F1040 | MUR F1060 | Unit    |
|----------------------------------------------------------------------------------------------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| Forward Voltage<br>(Note 1) ( $I_F = 10A, T_C = 25^{\circ}C$ )                                                             | $V_F$    | 0.95      |           |           |           | 1.25      |           | 1.70      | V       |
| Maximum Instantaneous Reverse Current<br>(Note 1) (Rated DC Voltage, $T_C = 25^{\circ}C$ )                                 | $I_R$    | 10        |           |           |           |           |           |           | $\mu A$ |
| Maximum Reverse Recovery Time<br>( $I_F = 1.0 A, di/dt = 50 A/\mu s$ )<br>( $I_F = 0.5 A, I_R = 1.0 A, I_{REC} = 0.25 A$ ) | $T_{RR}$ | 35<br>25  |           |           |           |           |           |           | ns      |

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

## Typical Characteristics

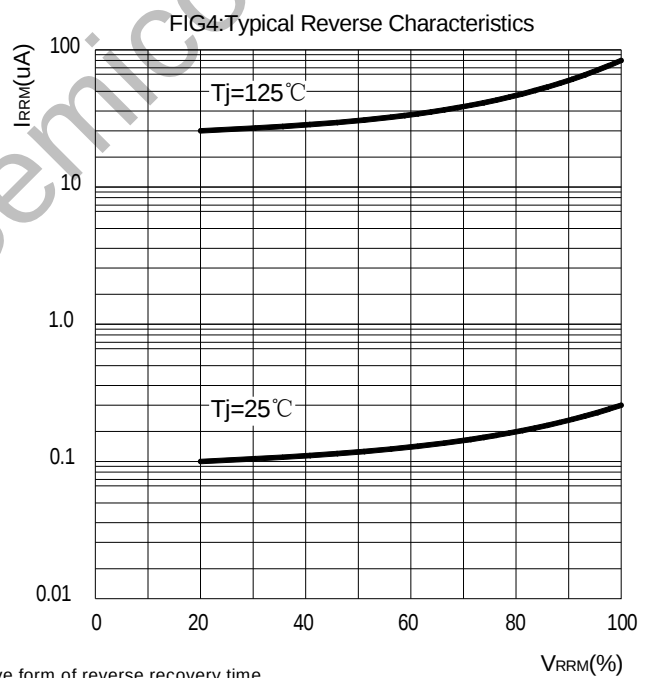
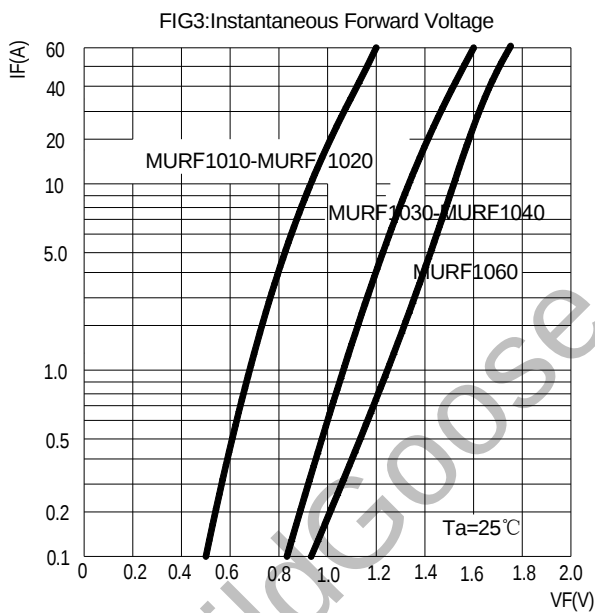
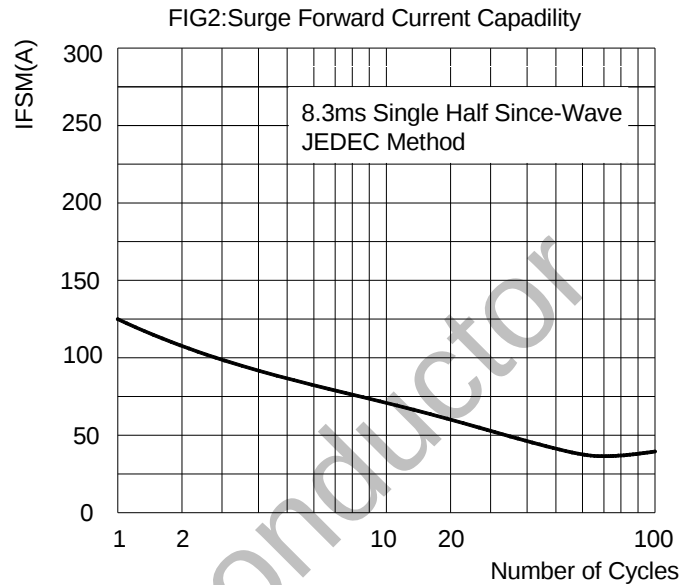
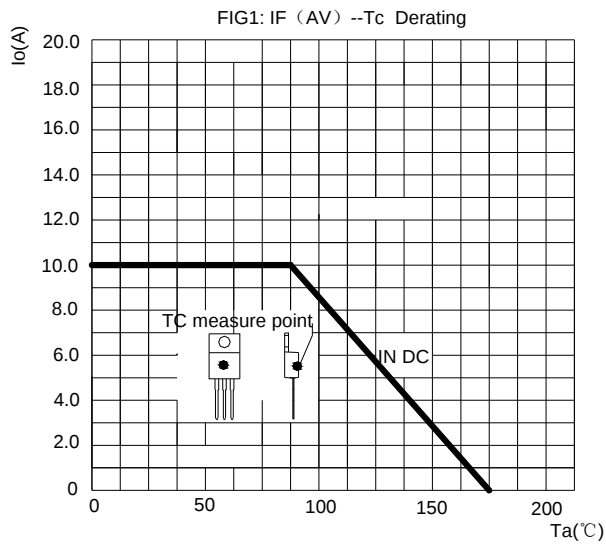
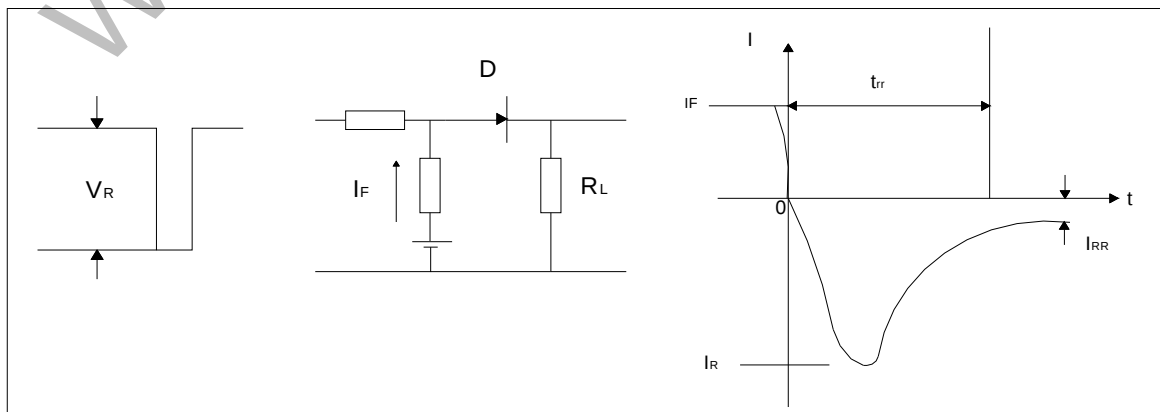
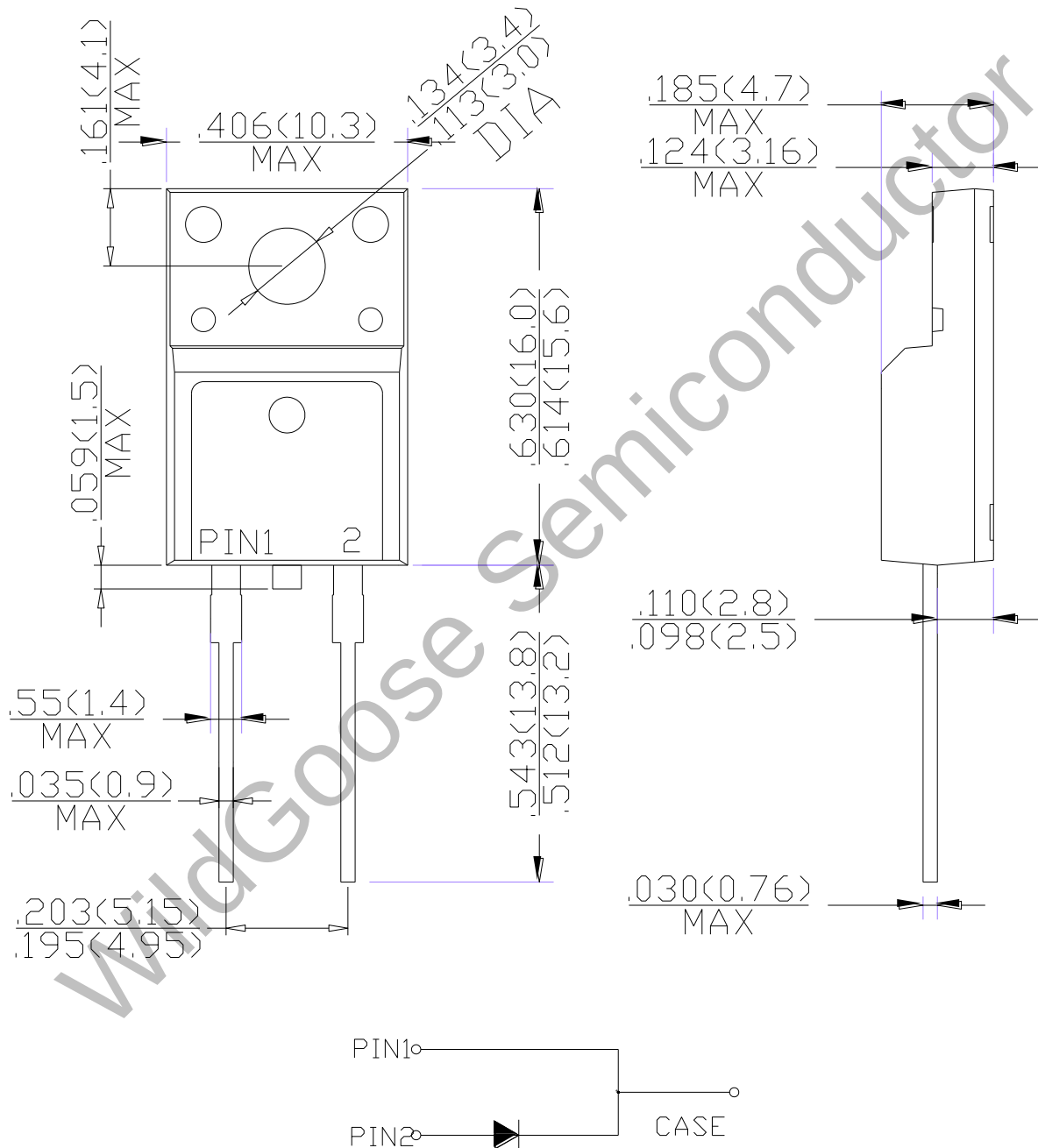


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



**Package Dimension**

**TO-220F -2L**



Dimensions in inches and (millimeters)