

# MURF1010CTR – MURF1060CTR

## 10 Amps Super Fast Recovery



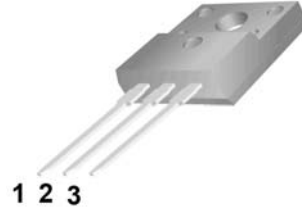
### MURF1010CTR – MURF1060CTR

#### Features:

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



TO-220F



1.Cathode 2.Anode 3. Cathode

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

| Parameter                                                                                               | Symbol          | MURF 1010 CTR                      | MURF 1015 CTR | MURF 1020 CTR | MURF 1040 CTR | MURF 1060 CTR | Unit |
|---------------------------------------------------------------------------------------------------------|-----------------|------------------------------------|---------------|---------------|---------------|---------------|------|
| Peak Repetitive Reverse Voltage                                                                         | $V_{RRM}$       | 100                                | 150           | 200           | 400           | 600           | V    |
| Working Peak Reverse Voltage                                                                            | $V_{RWM}$       | 70                                 | 105           | 140           | 280           | 420           | V    |
| DC Blocking Voltage                                                                                     | $V_{R(DC)}$     | 100                                | 150           | 200           | 400           | 600           | V    |
| Average Rectified Forward Current                                                                       | $I_{F(AV)}$     | Per Leg<br>Total Device<br>5<br>10 |               |               |               |               | A    |
| Peak Rectified Forward Current                                                                          | $I_{FM}$        | 10                                 |               |               |               |               | A    |
| Nonrepetitive Peak Surge Current(Surge applied at rated load conditions half wave, single phase, 60 Hz) | $I_{FSM}$       | 150                                |               |               |               |               | A    |
| Operating Junction Temperature and Storage Temperature                                                  | $T_J, T_{stg}$  | -55 to +150                        |               |               |               |               | °C   |
| Maximum Thermal Resistance, Junction-to-Case(Per Leg)                                                   | $R_{\theta JC}$ | 2.0                                |               |               |               |               | °C/W |

#### ELECTRICAL CHARACTERISTICS (Per Diode Leg)

| Parameter                                                                                                                             | Symbol   | MURF 1010 CTR | MURF 1015 CTR | MURF 1020 CTR | MURF 1040 CTR | MURF 1060 CTR | Unit    |
|---------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|---------------|---------------|---------------|---------------|---------|
| Forward Voltage (Note 1) ( $I_F = 5A, T_C = 25^\circ C$ )                                                                             | $V_F$    | 0.975         |               |               | 1.3           | 1.70          | V       |
| Maximum Instantaneous Reverse Current (Note 1)<br>(Rated DC Voltage, $T_C = 25^\circ C$ )<br>(Rated DC Voltage, $T_C = 125^\circ C$ ) | $I_R$    | 10<br>500     |               |               |               |               | $\mu A$ |
| Maximum Reverse Recovery Time<br>( $I_F = 0.5 A, I_R = 1.0 A, I_{REC} = 0.25 A$ )                                                     | $T_{RR}$ | 35            |               |               |               |               | ns      |

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

## Typical Characteristics

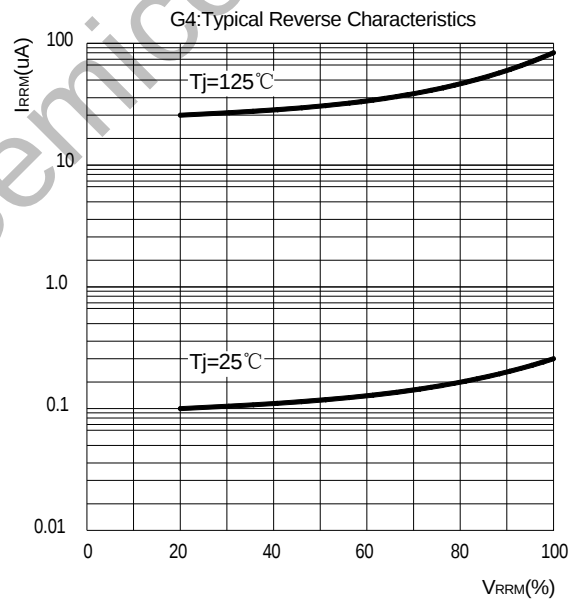
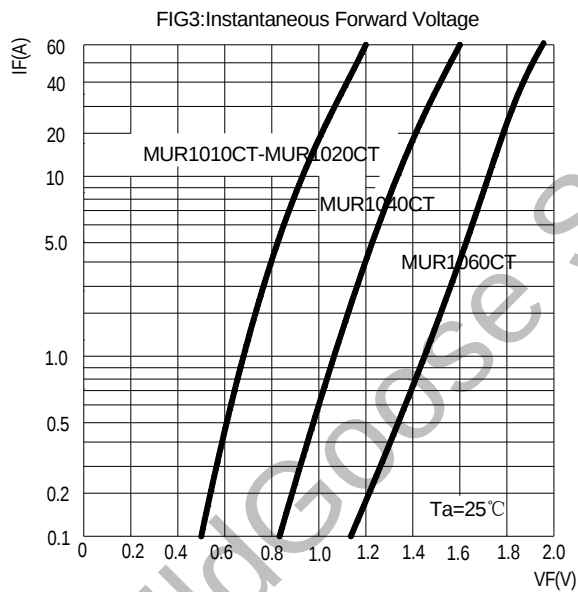
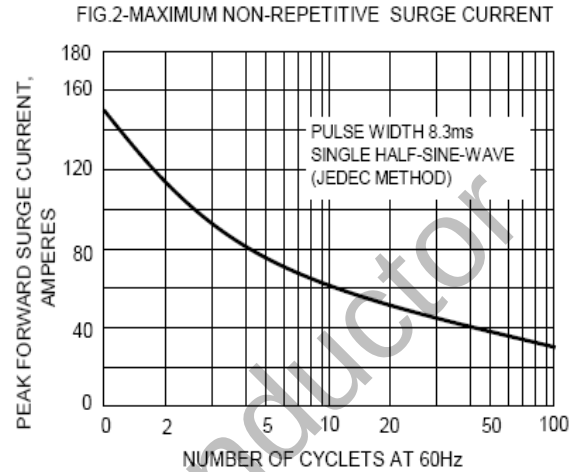
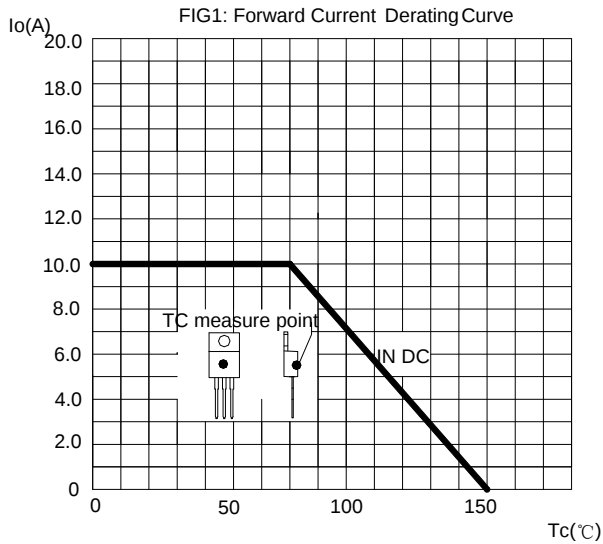
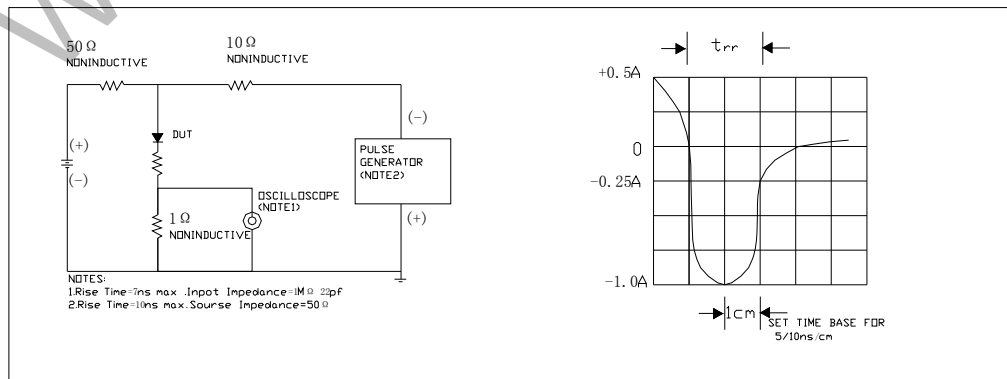
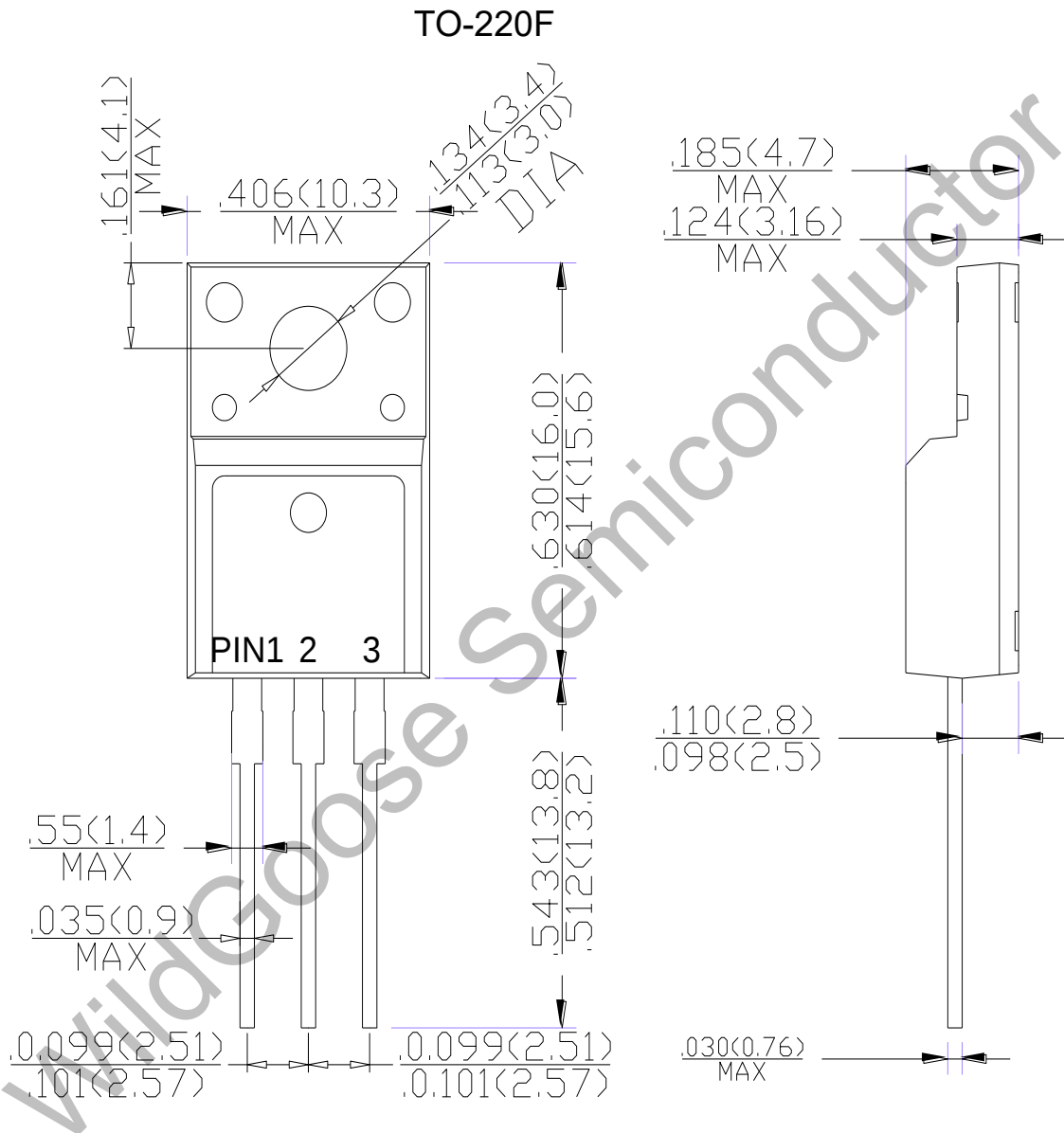


Diagram of circuit and Testing wave form of reverse recovery time



**Package Dimension**



Dimensions in inches and (millimeters)