



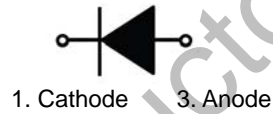
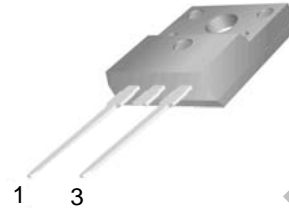
**MURF2005-MURF2060**

**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	MURF 2005	MURF 2010	MURF 2015	MURF 2020	MURF 2030	MURF 2040	MURF 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 Total Device, (Rated $V_R$ ),	$I_{F(AV)}$	20							A
Nonrepetitive Peak Surge Current(Surge applied at rated load conditions half wave, single phase, 60 Hz)	$I_{FSM}$	200							A
Operating Junction Temperature and Storage Temperature	$T_J, T_{stg}$	-55 to +155							°C
Maximum Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	3.0				2.0			°C/W

**ELECTRICAL CHARACTERISTICS**

Parameter	Symbol	MURF 2005	MURF 2010	MURF 2015	MURF 2020	MURF 2030	MURF 2040	MURF 2060	Unit
Forward Voltage (Note 1) ( $I_F = 20A, T_C = 25^\circ C$ ) ( $I_F = 20 A, T_C = 150^\circ C$ )	$V_F$	0.975 0.895			1.30 1.00		1.50 1.20		V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, $T_C = 25^\circ C$ ) (Rated DC Voltage, $T_C = 150^\circ C$ )	$I_R$	5 250			10 500			$\mu A$	
Maximum Reverse Recovery Time ( $I_F = 1.0 A, di/dt = 50 A/\mu s$ ) ( $I_F = 0.5 A, I_R = 1.0 A, I_{REC} = 0.25 A$ )	$T_{RR}$				35 25				ns

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

Typical Characteristics

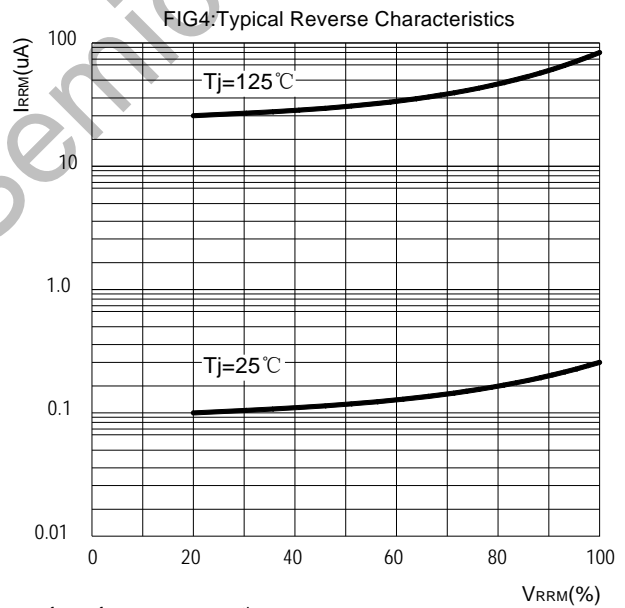
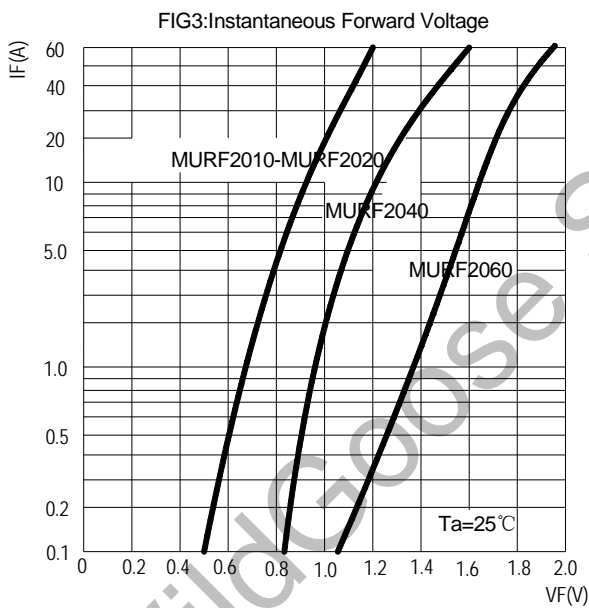
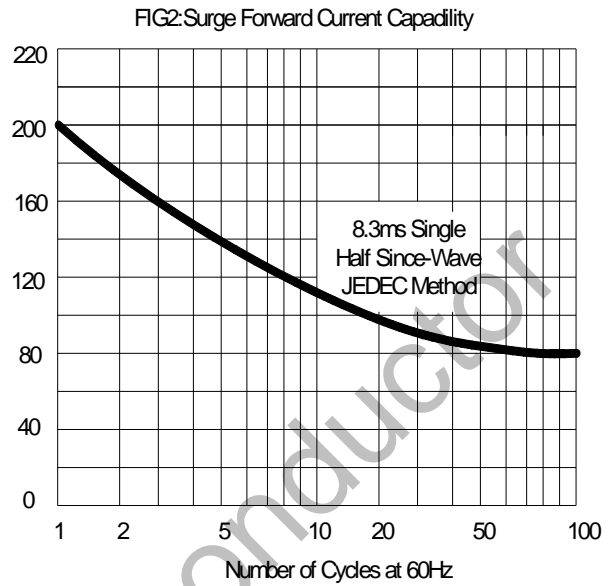
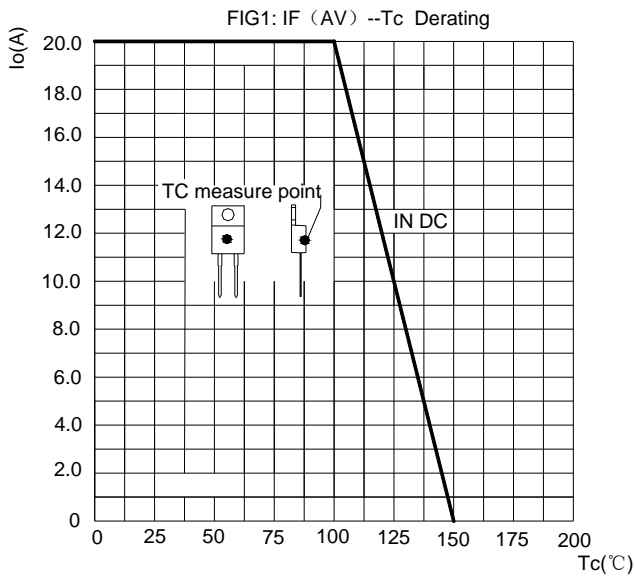
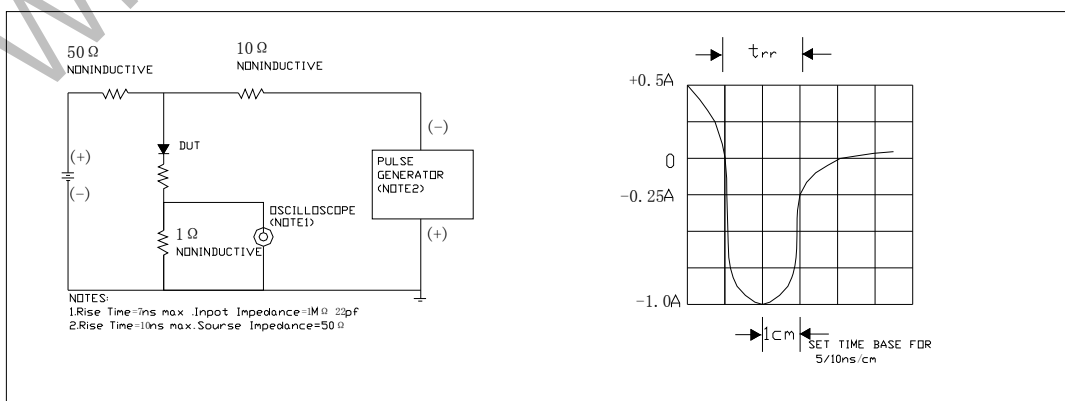
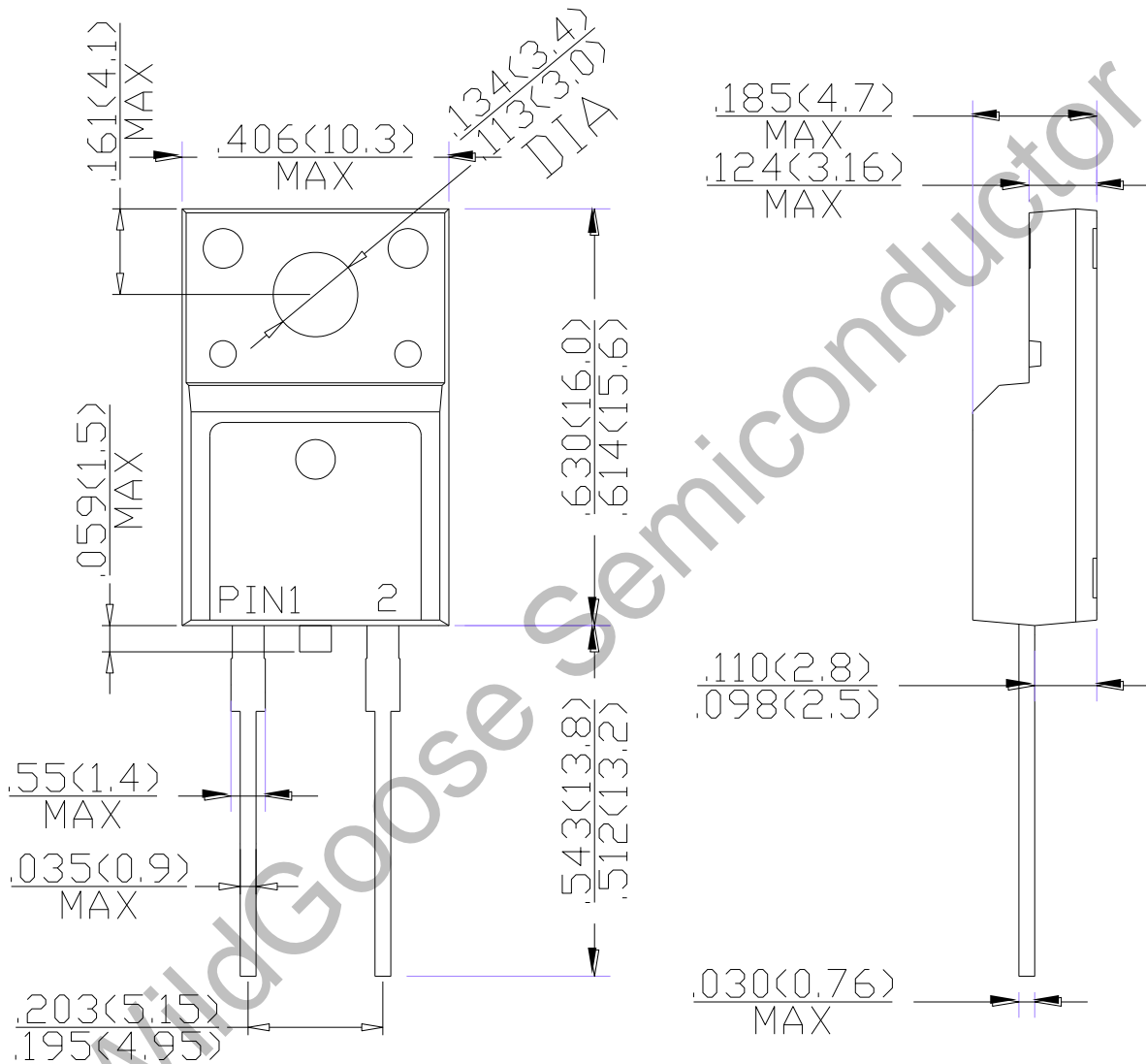


Diagram of circuit and Testing wave form of reverse recovery time



**Package Dimension**

TO-220F -2L



Dimensions in inches and (millimeters)