MURF2005CT-MURF2060CT

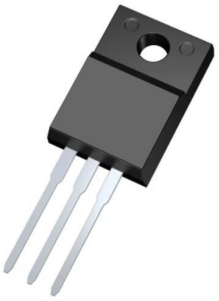
20A Super Fast Recovery

MAOYUANWEI semiconductor

Features:

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

TO-220F



1.Anode 2.Cathode 3. Anode

Absolute Maximum Ratings (Ta=25℃ unless otherwise noted)

Parameter	Symbol	MURF 2005CT	MURF 2010CT	MURF 2015CT	MURF 2020CT	MURF 2030CT	MURF 2040CT	MURF 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 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	TJ, Tstg	-55 to +155							℃
Maximum Thermal Resistance,Junction−to−Cas	$R_{\theta JC}$	3.0				2.0			℃/W

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	MURF 2005CT	MURF 2010CT	MURF 2015CT	MURF 2020CT	MURF 2030CT	MURF 2040CT	MURF 2060CT	Unit
Forward Voltage(I_F =10A, T_C = 25°C) (Note 1) (I_F =10 A, T_C =125°C)	V_F	0.975 0.895				1.30 1.10		1.70 1.50	V
Maximum Instantaneous Reverse Current (Note 1)(Rated DC Voltage, T_C =25°C) (Rated DC Voltage, T_C = 125°C)	I_R	5 250				10 500			μA
Maximum Reverse Recovery Time (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 μs, Duty Cycle ≤2.0%

Typical Characteristics

FIG1: IF（AV）--Tc Derating

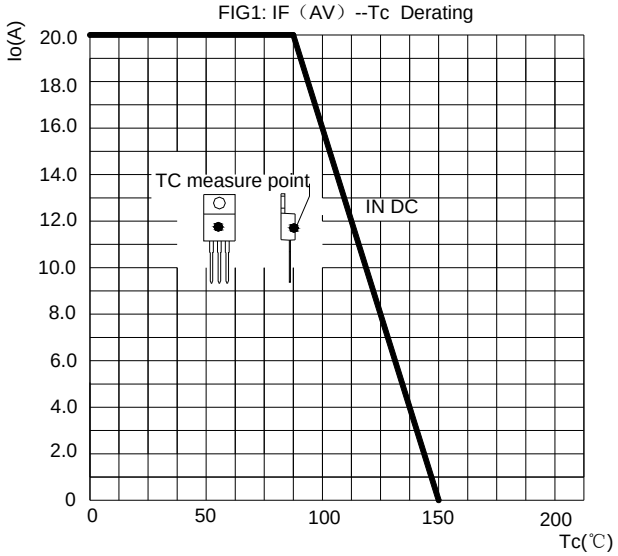


FIG2:Surge Forward Current Capadility

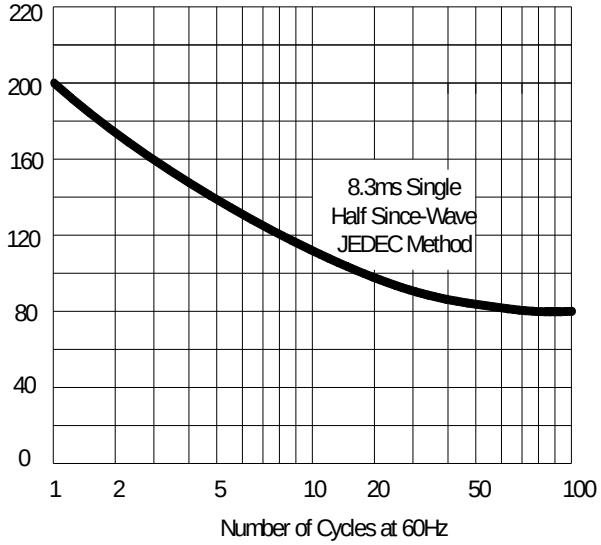


FIG3:Instantaneous Forward Voltage

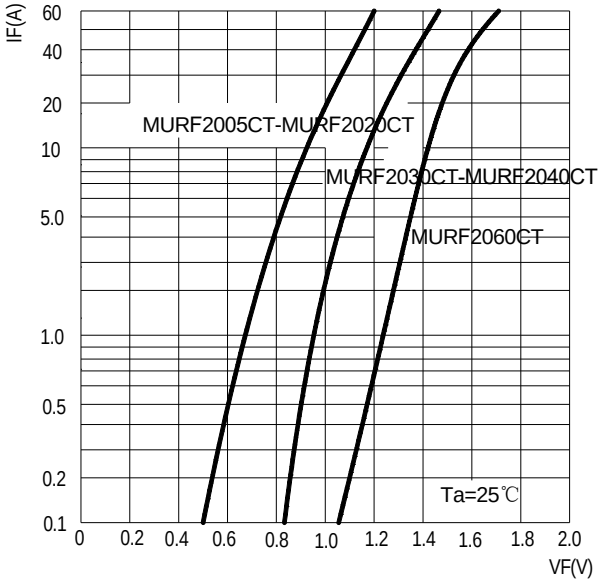


FIG4:Typical Reverse Characteristics

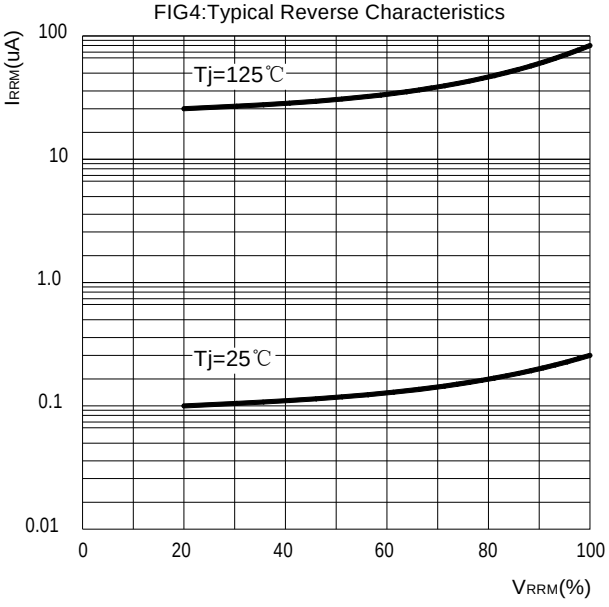
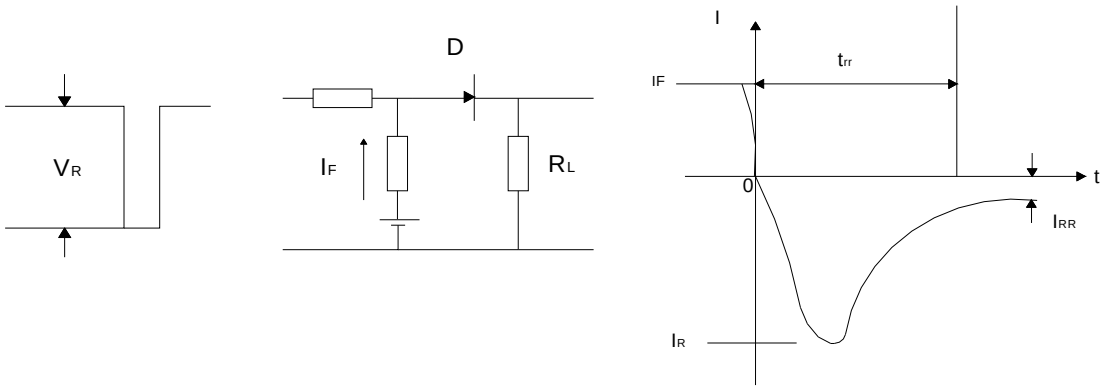


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



Package Dimension

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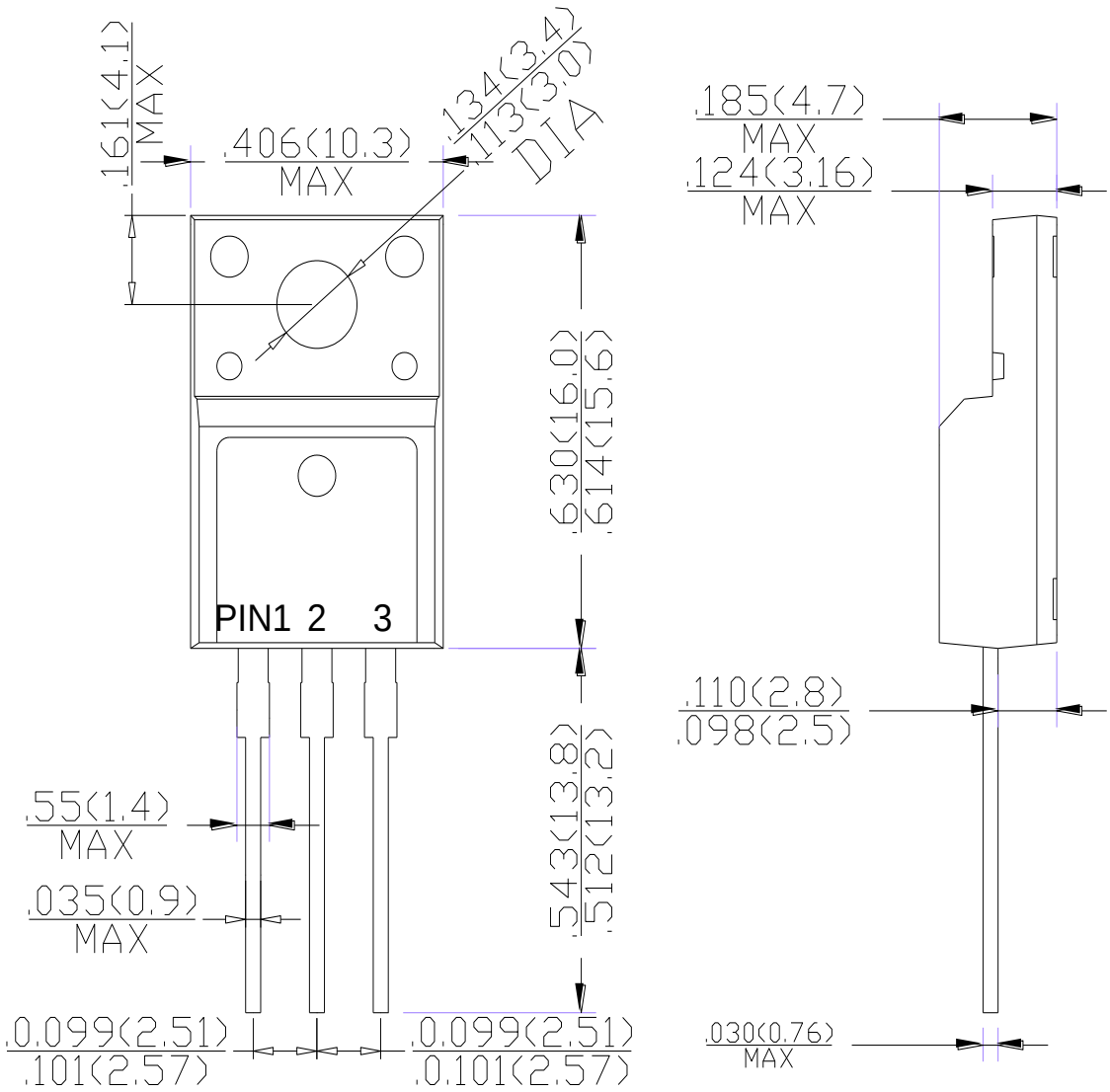

Dimensions in inches and (millimeters)