

MUR3010CT – MUR3060CT

30 Amps Super Fast Recovery

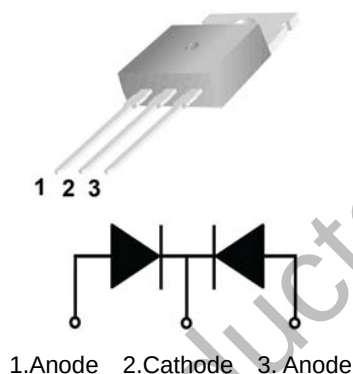


MUR3010CT – MUR3060CT

Features:

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

TO-220



1. Anode 2. Cathode 3. Anode

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

Parameter	Symbol	MUR 3010 CT	MUR 3015 CT	MUR 3020 CT	MUR 3040 CT	MUR 3060 CT	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	150	200	400	600	V
Working Peak Reverse Voltage	V_{RWM}	100	150	200	400	600	V
DC Blocking Voltage	$V_{R(DC)}$	100	150	200	400	600	V
Average Rectified Forward Current Per Leg Total Device	$I_{F(AV)}$	15 30					A
Peak Rectified Forward Current (Rated V_R , Square Wave, 20 kHz)	I_{FM}	30					A
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half wave, single phase, 60 Hz)	I_{FSM}	240					A
Operating Junction Temperature and Storage Temperature	T_J, T_{stg}	-55 to +150					°C
Maximum Thermal Resistance, Junction-to-Case (Per Leg)	$R_{\theta JC}$	3.0			2.0		°C/W

ELECTRICAL CHARACTERISTICS (Per Diode Leg)

Parameter	Symbol	MUR 3010 CT	MUR 3015 CT	MUR 3020 CT	MUR 3040 CT	MUR 3060 CT	Unit
Forward Voltage (Note 1) ($I_F = 15$ A, $T_C = 25^\circ\text{C}$) ($I_F = 15$ A, $T_C = 125^\circ\text{C}$)	V_F	0.975 0.895			1.35 1.20	1.70 1.50	V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	I_R	5 250			10 500		μ A
Maximum Reverse Recovery Time ($I_F = 1.0$ A, $di/dt = 50$ A/ μ s) ($I_F = 0.5$ A, $I_R = 1.0$ A, $I_{REC} = 0.25$ A)	T_{RR}	35 25			35 30		ns

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

Typical Characteristics

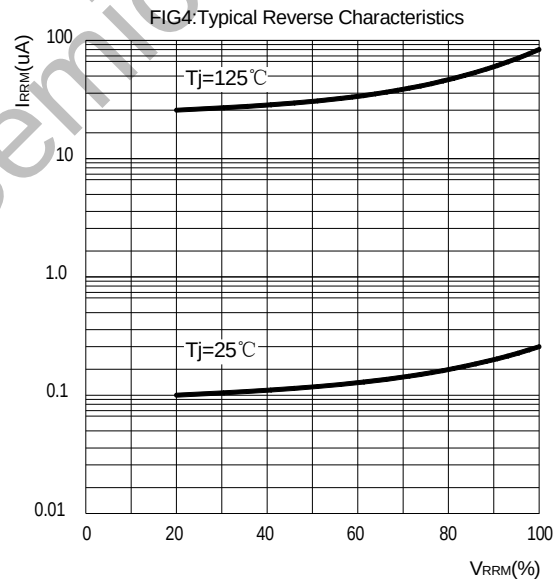
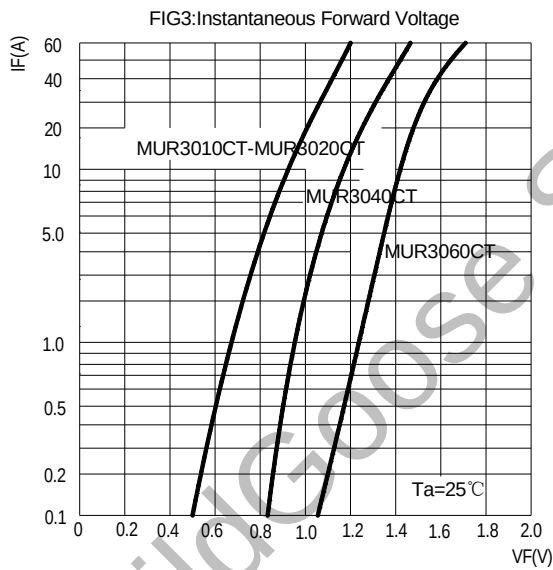
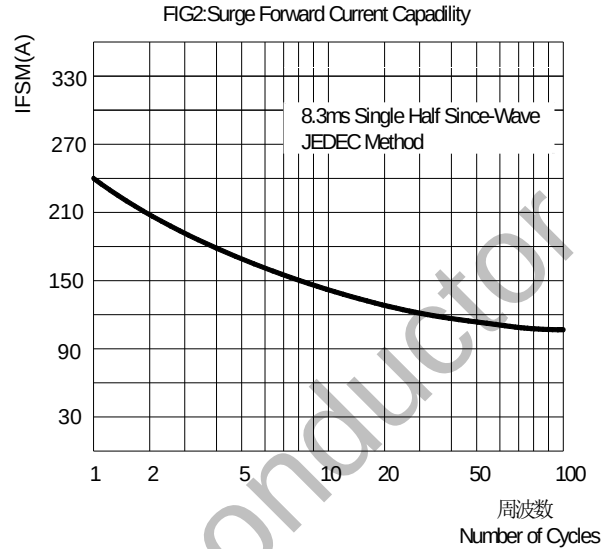
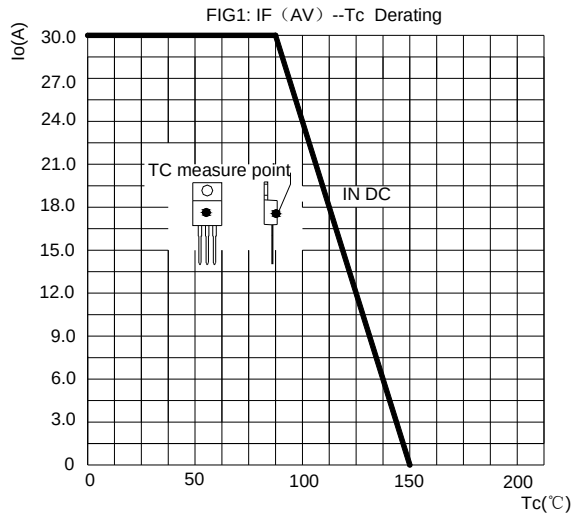


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

