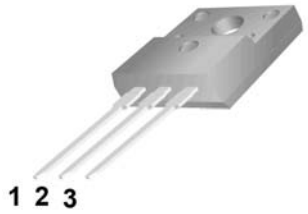
MURF3010CT – MURF3060CT

Features:

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

TO-220F

RoHS COMPLIANT



1.Anode 2.Cathode 3. Anode

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

Parameter	Symbol	MUR F3010 CT	MUR F3015 CT	MUR F3020 CT	MUR F3040 CT	MUR F3060 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, (Rated V_R), T_C = 150°C Total Device	$I_{F(AV)}$	15 30					A
Peak Rectified Forward Current Per Diode Leg (Rated V_R, Square Wave, 20 kHz), T_C = 150°C	I_{FM}	30					A
Nonrepetitive Peak Surge Current(Surge applied at rated load conditions half wave, single phase, 60 Hz)	I_{FSM}	180					A
Operating Junction Temperature and Storage Temperature	TJ, Tstg	-65 to +175					℃
Maximum Thermal Resistance, Junction−to−Case(Per Leg)	$R_{\theta JC}$	3.0			2.0		℃/W

ELECTRICAL CHARACTERISTICS (Per Diode Leg)

Parameter	Symbol	MUR F3010 CT	MUR F3015 CT	MUR F3020 CT	MUR F3040 CT	MUR F3060 CT	Unit
Forward Voltage (Note 1)(I_F =15 A, T_C = 25°C) (I_F =15 A, T_C = 150°C)	V_F	0.975 0.895			1.50 1.20	1.80 1.50	V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, T_C = 25°C) (Rated DC Voltage, T_C = 150°C)	I_R	5 250			10 500		μA
Maximum Reverse Recovery Time (I_F = 1.0 A, di/dt = 50 A/μs) (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 μs, Duty Cycle ≤2.0%

Typical Characteristics

FIG.1 - FORWARD CURRENT DERATING CURVE

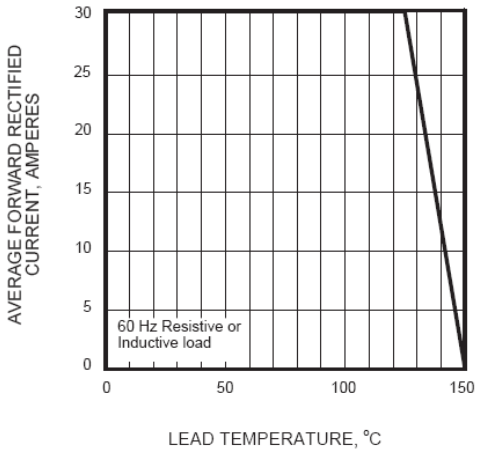


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

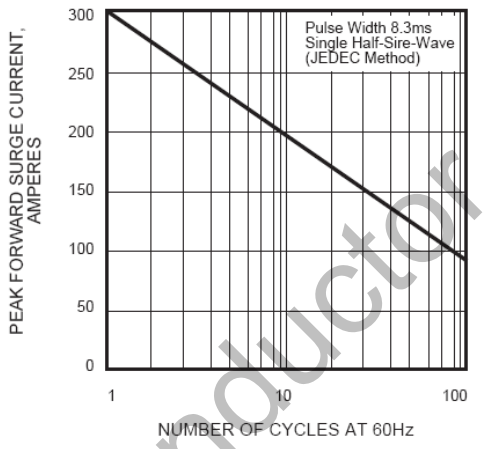


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

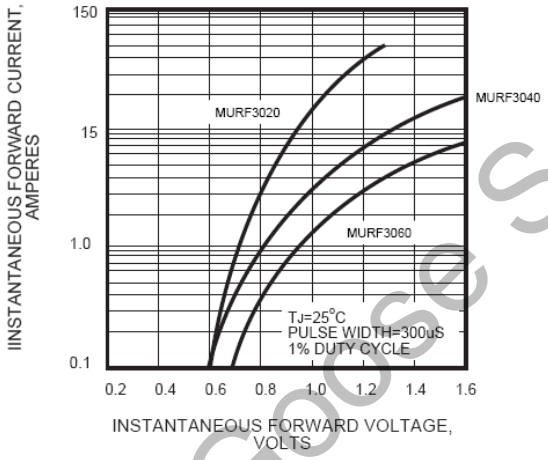


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

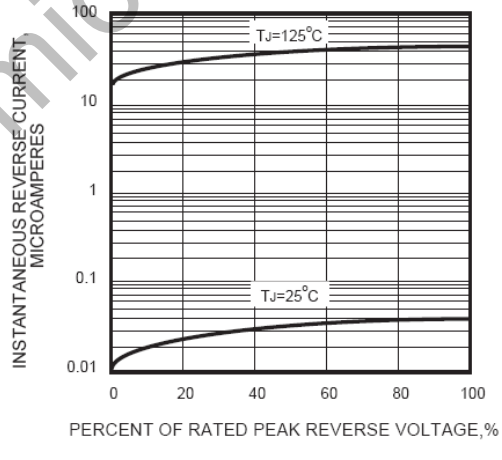
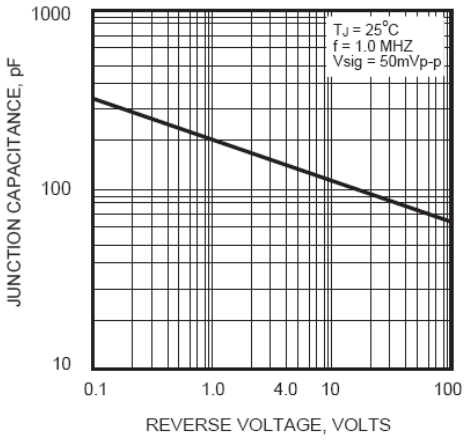


FIG.5 - TYPICAL JUNCTION CAPACITANCE



Package Dimension

TO-220F

Unit: mm