

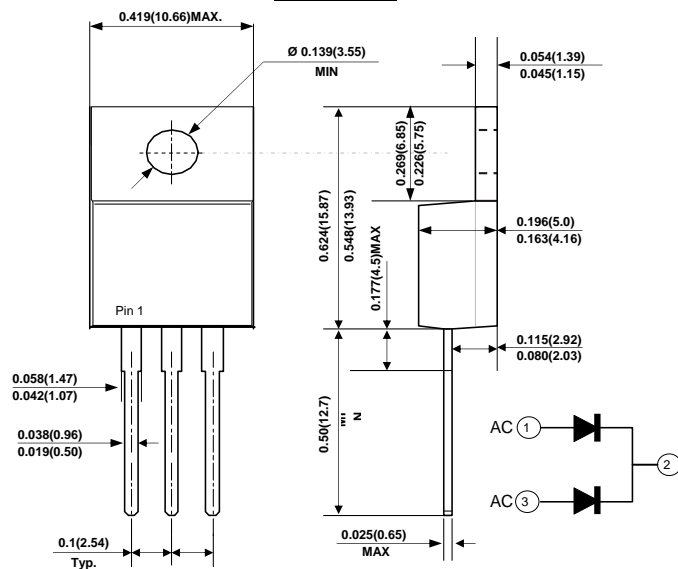


MUR3020CT THRU MUR3040CT

SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 200 and 400 Volts Forward Current - 30.0 Ampere

TO-220AB



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- ◆ Exceeds environmental of MIL-S-19500/228
- ◆ Low power loss, high efficiency.
- ◆ Low forward voltage, high current capability.
- ◆ High surge capability.
- ◆ Super fast recovery times, high voltage.
- ◆ Epitaxial chip construction.
- ◆ In compliance with EU RoHS 2002/95/EC directives.

MECHANICAL DATA

Case: TO-220AB, Molded plastic.

Terminals: Solderable per MIL-STD-750 - Method 2026

Weight: 1.859 gram (0.0655 ounces).

Standard Packaging : Tube.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	MUR3020CT	MUR3040CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	Volts
Maximum RMS Voltage	V_{RMS}	140	280	Volts
Maximum DC Breakdown Voltage	V_{DC}	200	400	Volts
Maximum Average Forward Current at $T_C = 90^\circ C$	$I_{F(AV)}$	30		Amp
Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated load (JEDEC methode)	I_{FSM}	300		Amps
Maximum Forward Voltage at 15A	V_F	0.95	1.3	Volts
Maximum DC Reverse Current Rated DC Blocking Voltage	I_R	1 50		μA
Maximum Reverse Recovery Time (NOTE 2)	t_{rr}	35		ns
Typical Junction Capacitance (NOTE 1)	C_J	140		pF
Typical Thermal Resistance	$R_{\theta JC}$	2		$^\circ C/W$
Operating and Storage Temperature Range	T_{STG}	-55 ~ +150		$^\circ C$

- Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
 3. Both Bonding and Chip structure are available.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

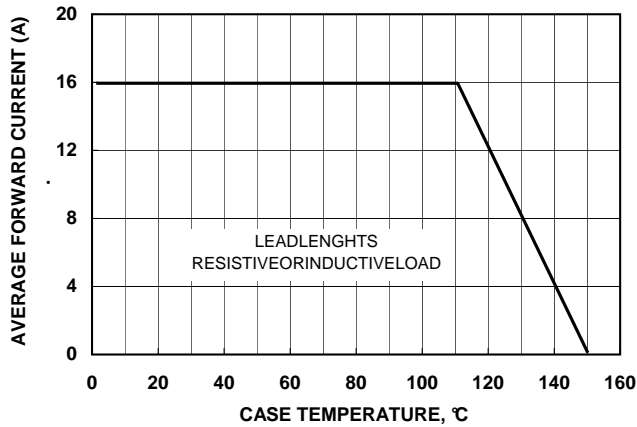


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

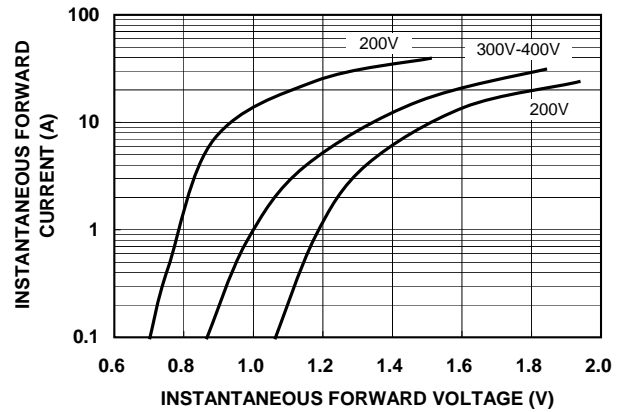


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

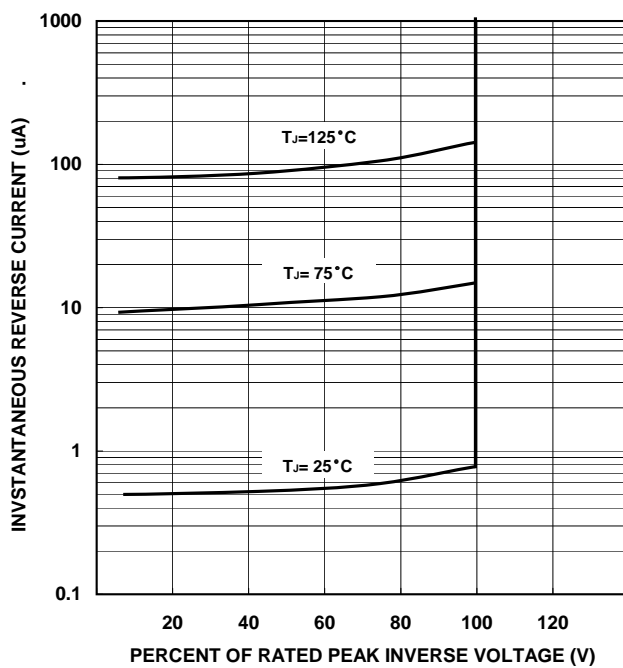


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

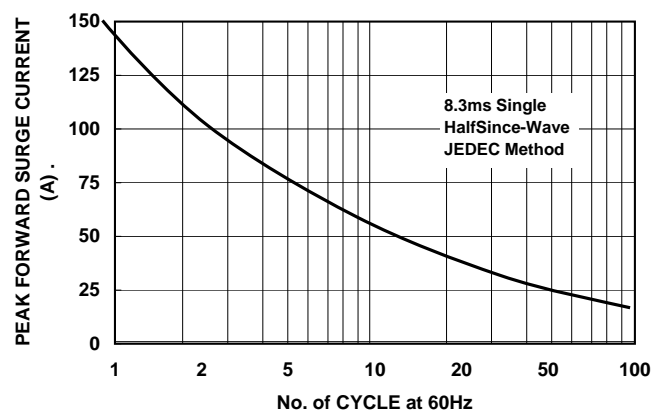


FIG. 5-TYPICAL JUNCTION CAPACITANCE

