

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Dual rectifier construction, positive centertap
- * Glass passivated chip junctions
- * Low power loss
- * Low forward voltage, high current capability
- * High surge current capability
- * Ultra fast recovery times for high efficiency
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

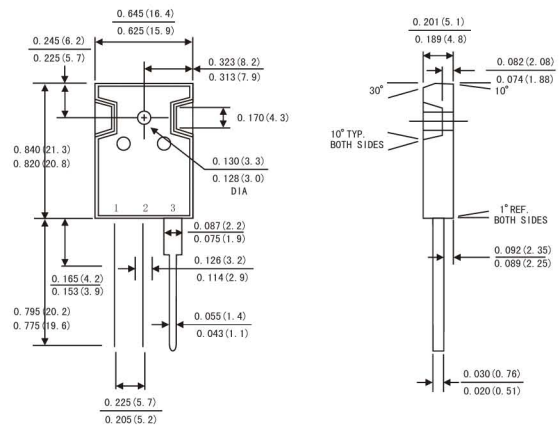
MECHANICAL DATA

Case: JEDEC TO-247 molded plastic
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Weight: 5.6 grams (Approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

TO-247



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	MUR3005CT	MUR3010CT	MUR3015CT	MUR3020CT	MUR3030CT	MUR3040CT	MUR3050CT	MUR3060CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current	I _o	30.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	300								Amps
Typical Junction capacitance per leg (NOTE 1)	C _J	200				140				pF
Typical thermal resistance (NOTE 2)	R θ _{JC}	1.0								°C / W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175								°C

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS		SYMBOL	MUR3005CT	MUR3010CT	MUR3015CT	MUR3020CT	MUR3030CT	MUR3040CT	MUR3050CT	MUR3060CT	UNITS	
Maximum Instantaneous Forward Voltage at 15.0 A DC		V _F	0.975					1.30	1.50		Volts	
Maximum DC reverse current	T _C = 25°C	I _R	10.0									uAmps
at rated DC blocking voltage per leg	T _C = 100°C		500									
Maximum reverse recovery time (NOTE 3) per leg		t _{rr}	35					50			nS	

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
 2. Thermal resistance from junction to case per leg mounted on heatsink
 3. Reverse recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = -1.0 \text{ A}$, $I_{rr} = -0.25 \text{ A}$.
 4. Suffix " C " = Common Cathod, Suffix " A " = Common Anode, Suffix " D " = Double.

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RATING CHARACTERISTIC CURVES (MUR3005CT THRU MUR3060CT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

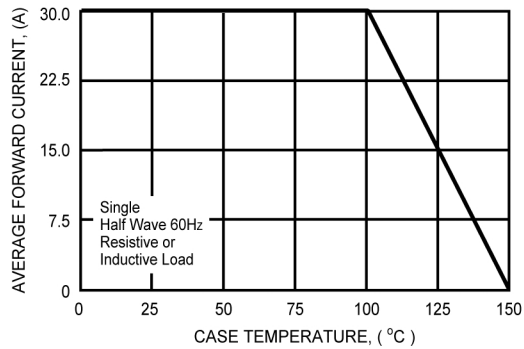


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

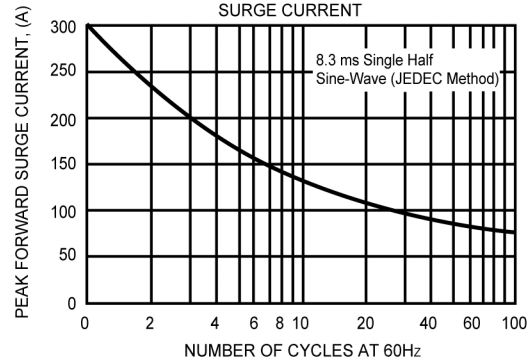


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

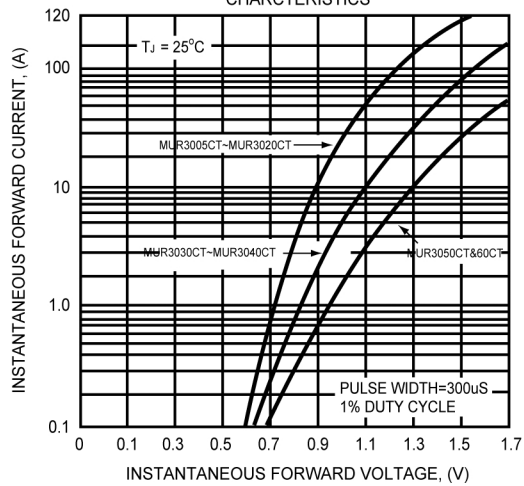


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

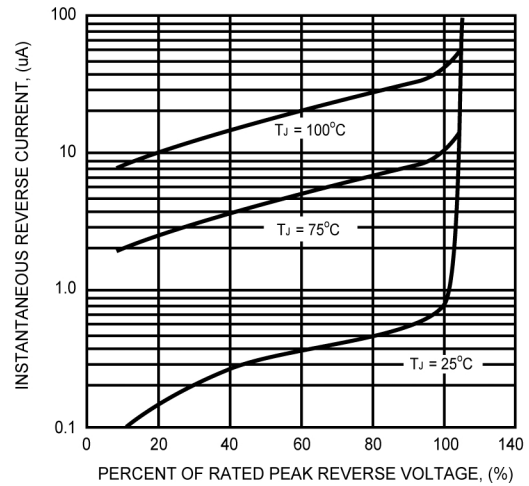


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

