



ULTRA FAST RECTIFIER

MUR3005CT - MUR3060CT

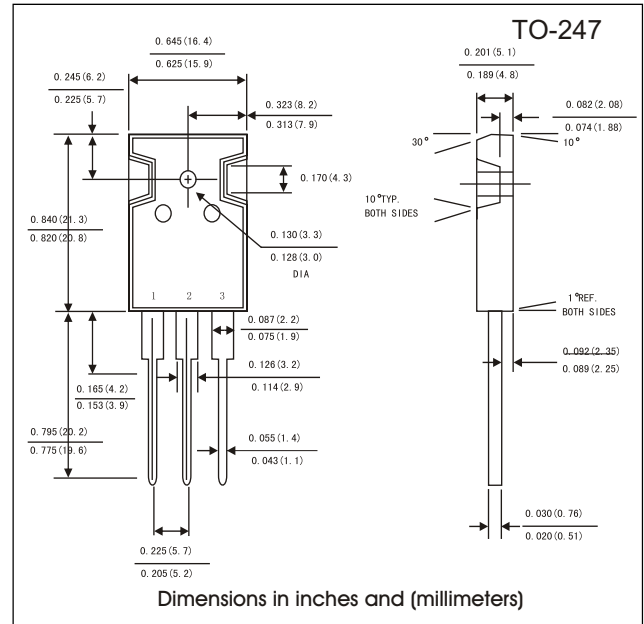
REVERSE VOLTAGE - 50 to 600 V
FORWARD CURRENT - 30 A

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%.

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

RATINGS	SYMBOL	MUR3 005CT	MUR3 010CT	MUR3 015CT	MUR3 020CT	MUR3 030CT	MUR3 040CT	MUR3 050CT	MUR3 060CT	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current	IO	30.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	300								Amps
Typical Junction capacitance per leg (NOTE 1)	CJ	200				140				pF
Typical thermal resistance (NOTE 2)	R _θ JC	1.0								°C / W
Operating and Storage Temperature Range	TJ,TSTG	-65 to +175								°C



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

CHARACTERISTICS		SYMBOL	MUR 3005 CT	MUR 3010 CT	MUR 3015 CT	MUR 3020 CT	MUR 3030 CT	MUR 3040 CT	MUR 3050 CT	MUR 3060 CT	UNITS	
Maximum Instantaneous Forward Voltage at 15.0 A DC		VF	0.975				1.30		1.50		Volts	
Maximum DC reverse current at rated DC blocking voltage per leg	TC = 25 °C	IR	10.0									uAmps
	TC = 100 °C		500									
Maximum reverse recovery time (NOTE 3) per leg		trr	35				50				nS	

NOTES1. 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 : IF = 0.5 A, Ir = -1.0 A, Irr = -0.25 A.

4. Suffix " C " = Common Cathod, Suffix " A " = Common Anode, Suffix " D " = Double.



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RATING AND CHARACTERISTIC CURVES MUR3005CT - MUR3060CT

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

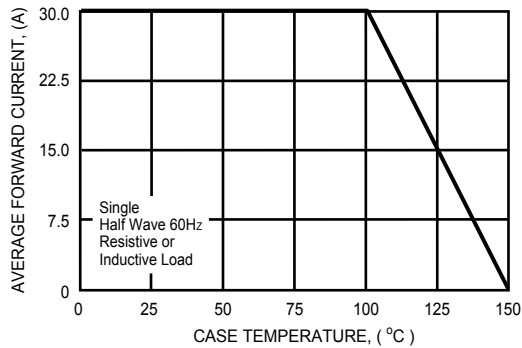


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

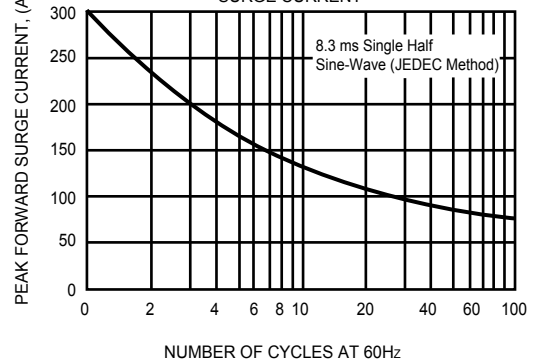


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

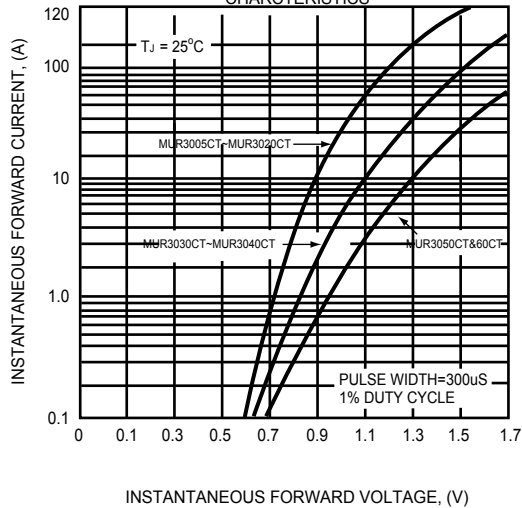


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

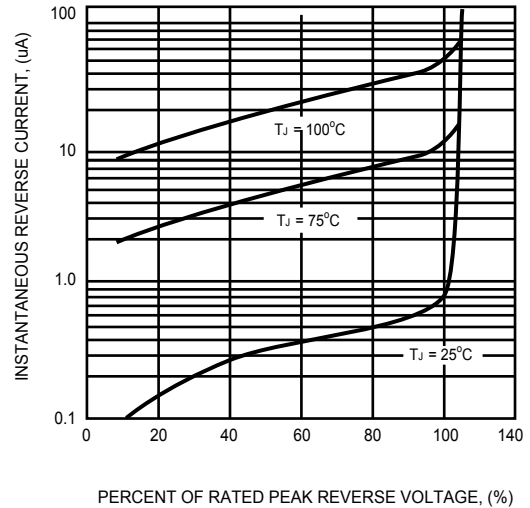


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

