

ULTRAFAST RECTIFIER
VOLTAGE RANGE 1000 Volts CURRENT 8.0 Amperes

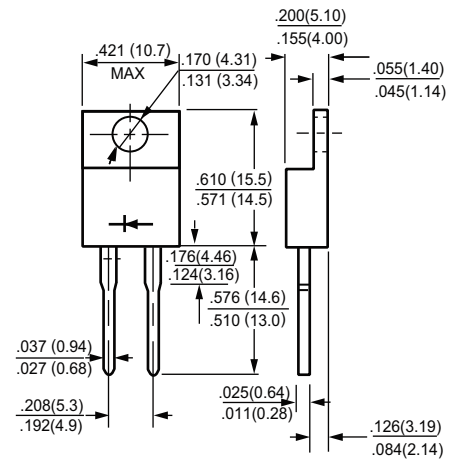
FEATURES

- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Ultrafast switching speed
- * Highsurge capability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Polarity: As marked

TO220A-1



Dimensions in inches and (millimeters)

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 TA = 25°C unless otherwise noted)

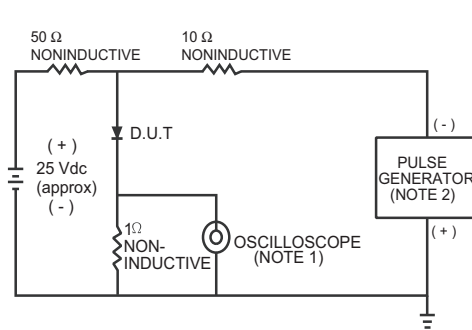
RATINGS	SYMBOL	MUR8100	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	1000	Volts
Maximum RMS Voltage	VRMS	700	Volts
Maximum DC Blocking Voltage	VDC	1000	Volts
Maximum Average Forward Rectified Current TC = 110°C (Note 1)	Io	8.0	Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	125	Amps
Typical Current Squared Time	I ² t	64.84	A ² S
Typical Thermal Resistanc	RθJC	3.5	°C/W
Operating and Storage Temperature Range	TJ, Tstg	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MUR8100	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	VF	1.8	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@TA = 25°C	10	uAmps
	@TA = 125°C	500	
Maximum Reverse Recovery Time (Note 2)	trr	75	nSec

NOTES : 1. Case Temperature Measured at Metal Tab.
2. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A .
3. Suffix " R " = Common Anode.

RATING AND CHARACTERISTICS CURVES (MUR8100)



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.
 2. Rise Time = 10ns max. Source Impedance = 50 ohms.

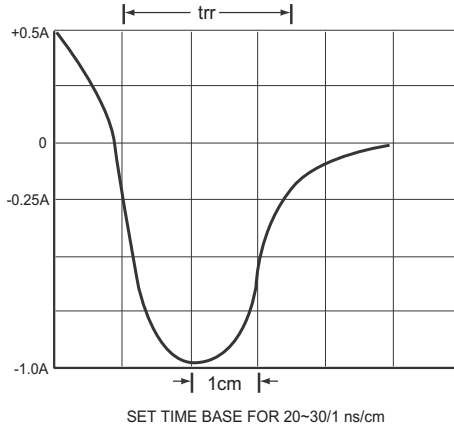


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

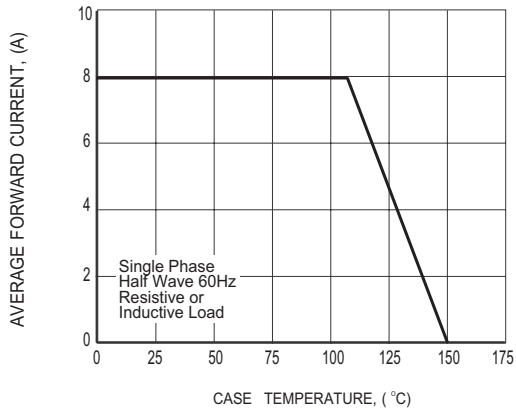


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

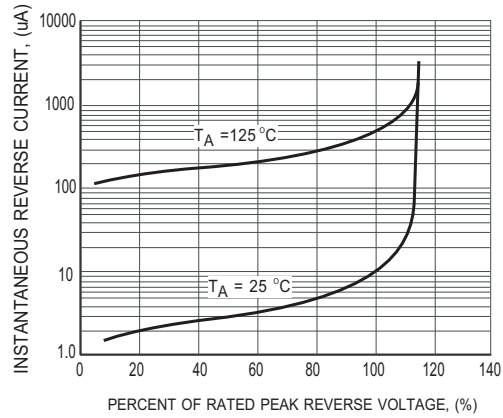


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

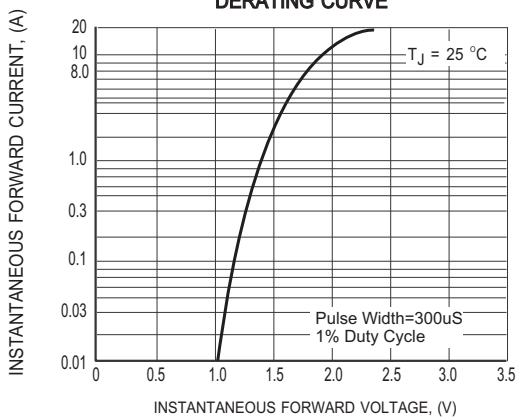


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

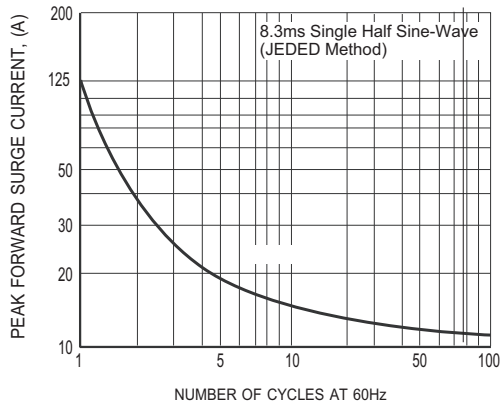
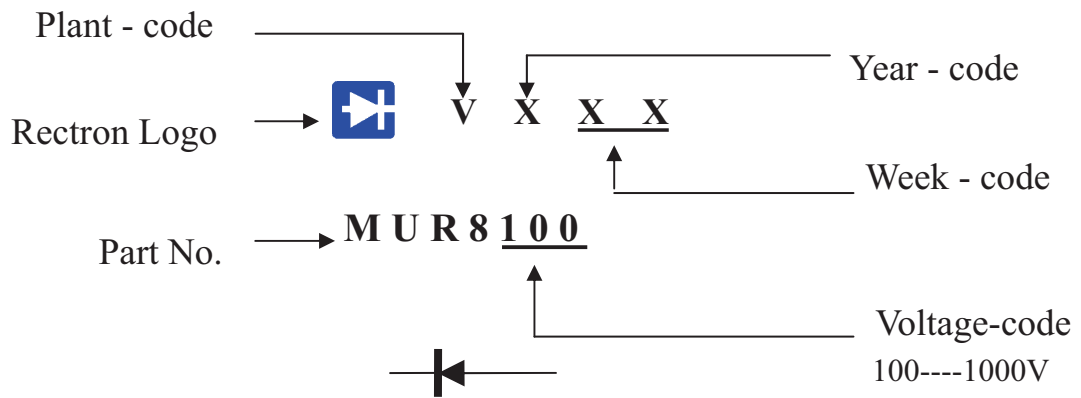


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking on the body



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
(I)TO-220/TO-220(A)	-C	2,000	550*140*92	572*308*120	4,000	11.80

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