



MUR880E THRU MUR8100E

GLASS PASSIVATED HIGH EFFICIENCY RECTIFIER

REVERSE VOLTAGE: 800 to 1000 VOLTS

FORWARD CURRENT: 8.0 AMPERE

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Ultra fast recovery times, high voltage.
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, TO-220A

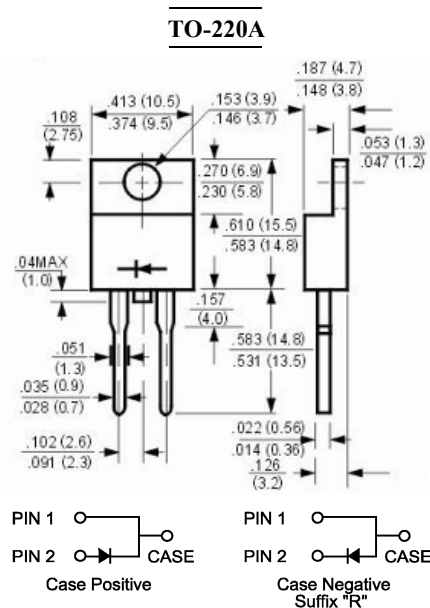
Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed

Polarity: As marked

Mounting position: Any

Weight: 0.08ounce, 2.24gram



Dimensions in inches and (millimeters)

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, derate current by 20%.

	Symbols	MUR880E	MUR8100E	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	800	1000	Volts
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at $T_C=100^{\circ}C$	$I_{(AV)}$	8.0		Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150		Amp
Maximum Forward Voltage at 8.0A and $T_A=25^{\circ}C$	V_F	1.7		Volts
Maximum Reverse Current at $T_A=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=125^{\circ}C$	I_R	10.0 250		 uAmp
Typical Junction Capacitance (Note 1)	C_J	50		pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	80		nS
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	3		$^{\circ}C/W$
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150		$^{\circ}C$

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Reverse Recovery Test Conditions: $I_F=5A$, $I_R=1A$, $I_{RR}=.25A$.
- 3- Thermal Resistance from Junction to Case Mounted on Heatsink.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

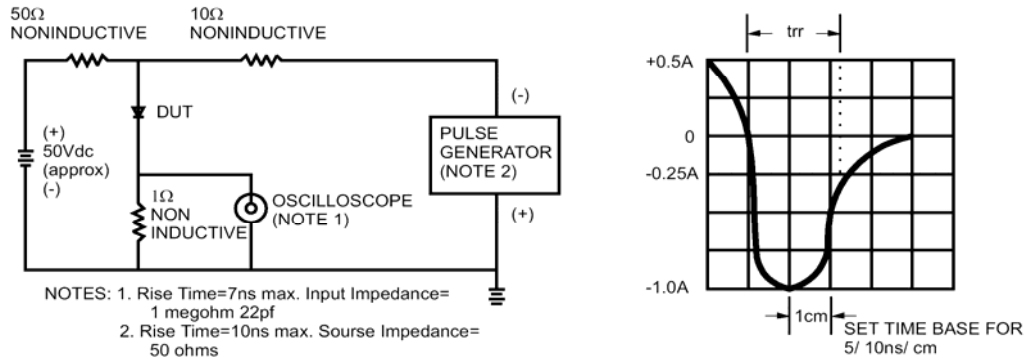


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

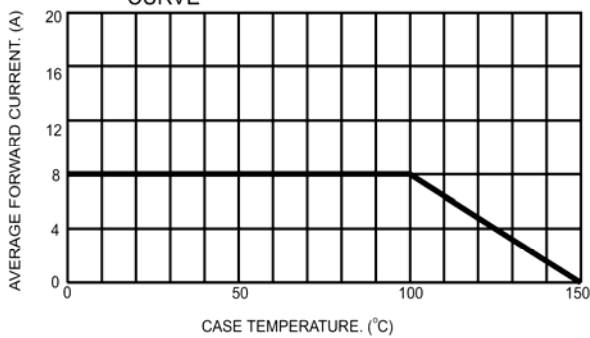


FIG.3- TYPICAL REVERSE CHARACTERISTICS

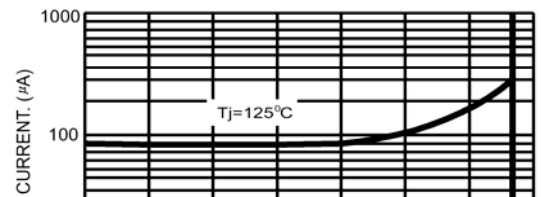


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

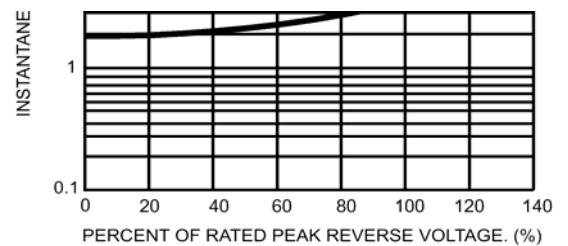
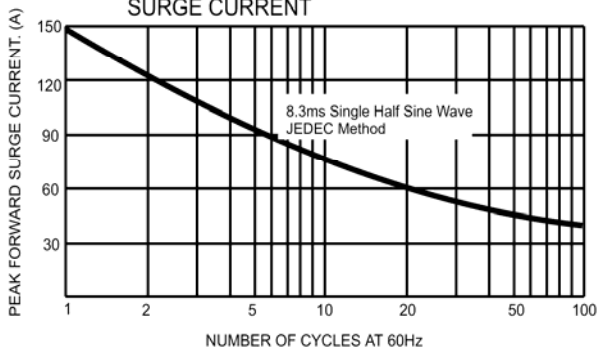


FIG.5- TYPICAL JUNCTION CAPACITANCE

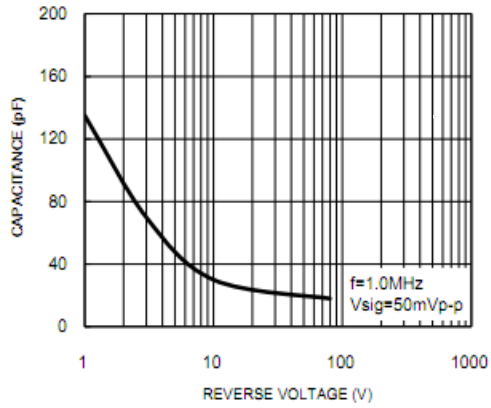


FIG.6- TYPICAL FORWARD CHARACTERISTICS

