

SILICON RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

FEATURES

- * High surge current capability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * Low loss

MECHANICAL DATA

- * Case: Molded plastic black body
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.08 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

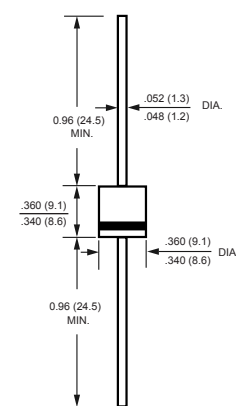
Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



R-6



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A = 50^{\circ}C$	I_O	10							Amps
Peak Forward Surge Current I_{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400							Amps
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	9							$^{\circ}C/W$
Typical Junction Capacitance (Note 1)	C_J	135							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							$^{\circ}C$

ELECTRICAL CHARACTERISTICS (@T_A=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	10A05	10A1	10A2	10A4	10A6	10A8	10A10	UNITS
Maximum Forward Voltage at 10A DC		V _F	1.1							Volts
Maximum DC Average Reverse Current at Rated DC Blocking Voltage	@ T _A = 25°C	I _R	10							uAmps
	@ T _A = 100°C		100							
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) Lead Length at T _L =75°C				50						

NOTES : 1. Measured at 1.0 MHz and applied average voltage of 4.0VDC

2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

3. Thermal Resistance: At 9.5mm lead lengths,PCB mounted.

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RATING AND CHARACTERISTICS CURVES (10A05 THRU 10A10)

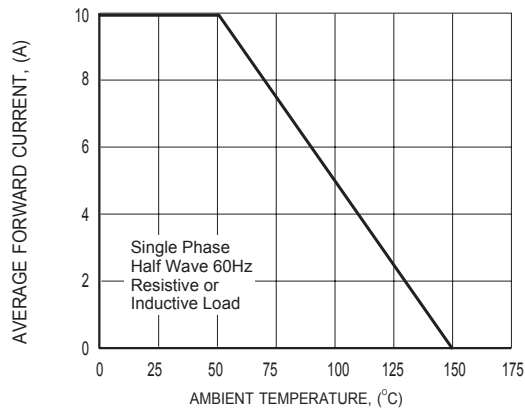


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

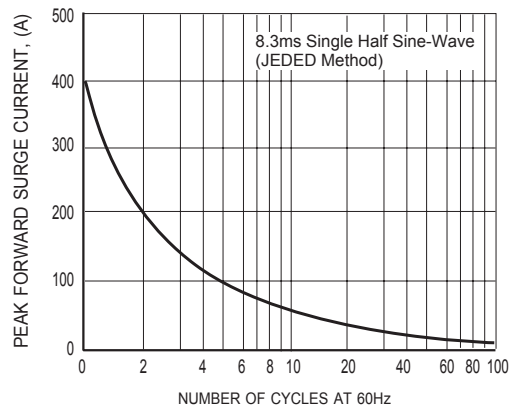


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

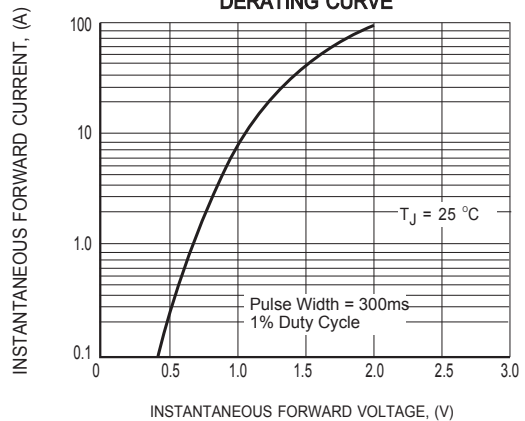


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

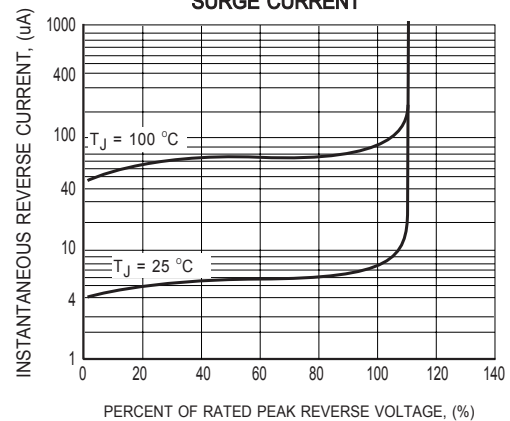


FIG.4 TYPICAL REVERSE CHARACTERISTICS

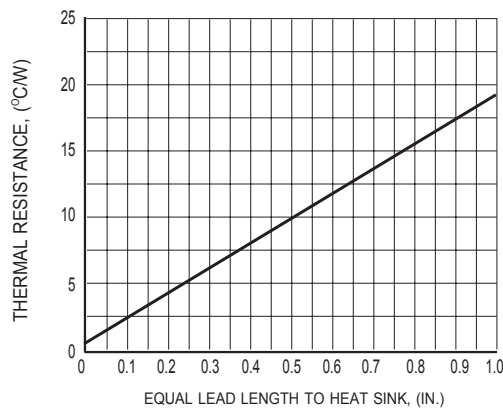


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

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