

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 lost

MECHANICAL DATA

- * Case: Molded plastic black body
- * Epoxy: Device has UL flammability classification 94V-0
- * 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%.

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 TA = 50°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 _{θJA}	9							°C/W
Typical Junction Capacitance (Note 1)	C _J	135							pF
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (@TA=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	I _R	@TA = 25°C							uAmps
		@TA = 100°C							
Maximum Full Load Reverse Current Average Full Cycle .375" (9.5mm) Lead Length at TL=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.

RATING AND CHARACTERISTICS CURVES (10A05 THRU 10A10)



FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

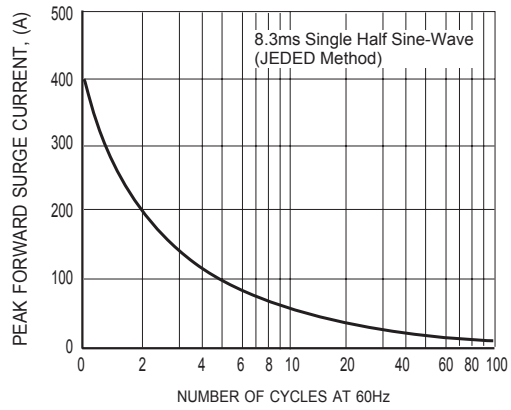


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

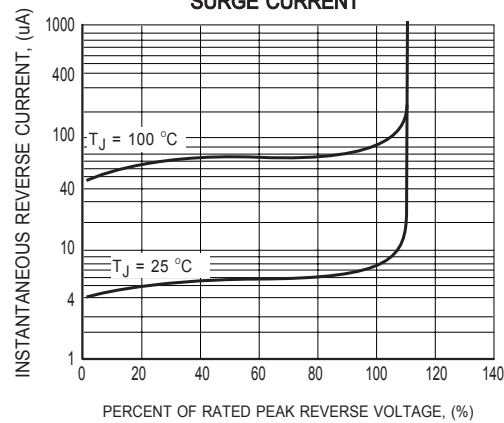


FIG.4 TYPICAL REVERSE CHARACTERISTICS

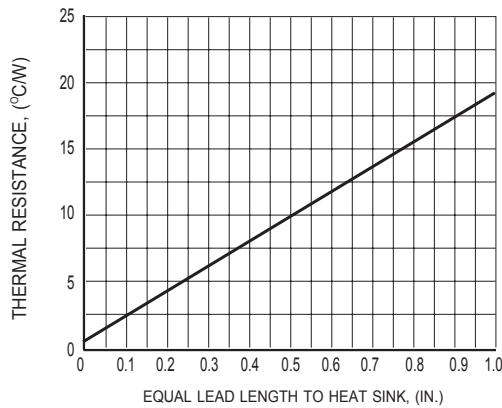


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

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