RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

10A05 THRU 10A10

SILICON RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 10 Amperes

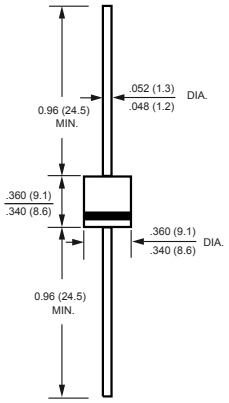
FEATURES

* 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-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 2.08 gram

R-6



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 (@ T_A=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°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							°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(@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. Thernal Resistance: At 9.5mm lead lengths,PCB mounted.

2009-06
REV: A

RATING AND CHARACTERISTICS CURVES (10A05 THRU 10A10)

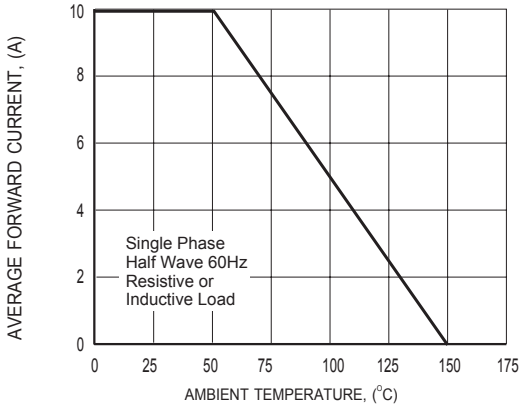


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

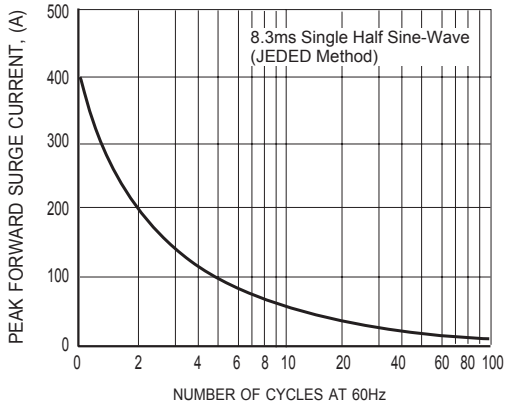


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

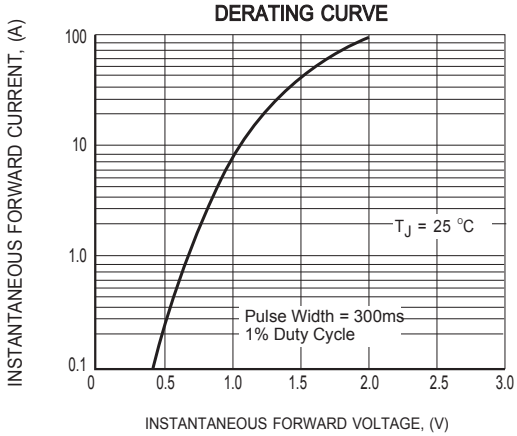


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

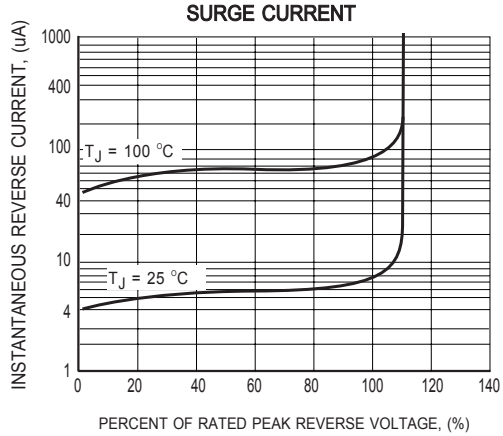


FIG.4 TYPICAL REVERSE CHARACTERISTICS

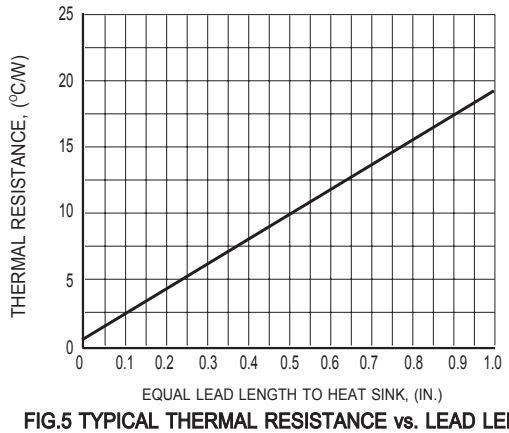


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

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