

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

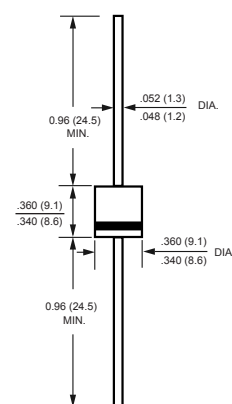
Ratings at 25 °C ambient temperature unless otherwise specified.

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(@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	@ 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.

2009-06
REV: A

RATING AND CHARACTERISTICS CURVES (10A05 THRU 10A10)

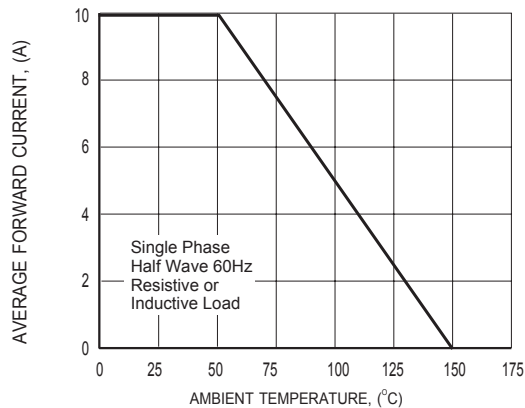


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

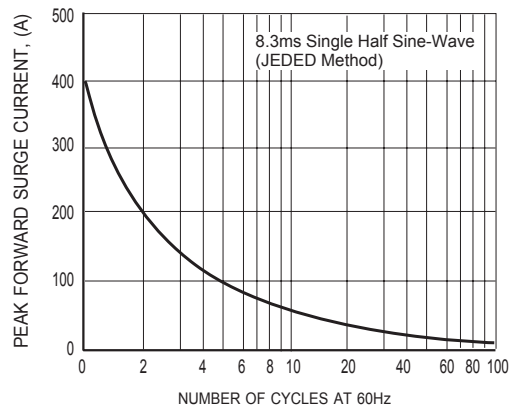


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

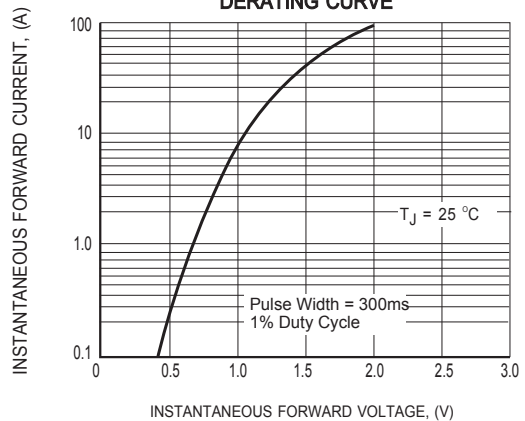


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

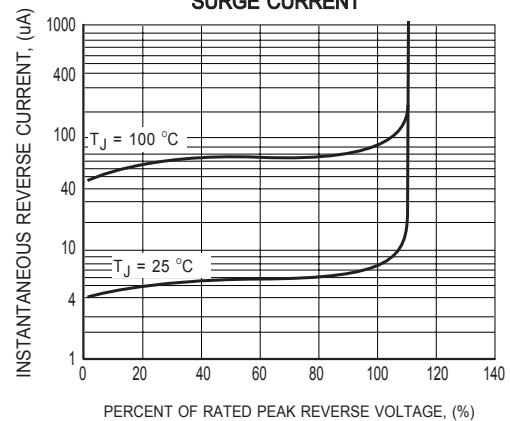


FIG.4 TYPICAL REVERSE CHARACTERISTICS

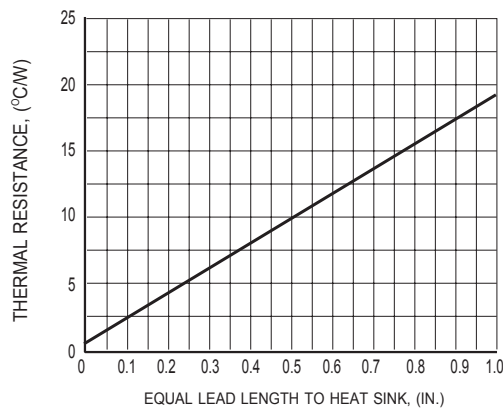


FIG.5 TYPICAL THERMAL RESISTANCE vs. LEAD LENGTH

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Rectron:](#)

[10A4-F-S-R01](#)