RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

R2500 THRU R5000

HIGH VOLTAGE SILICON RECTIFIER

VOLTAGE RANGE 2500 to 5000 Volts CURRENT 0.2 Ampere

FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.35 gram

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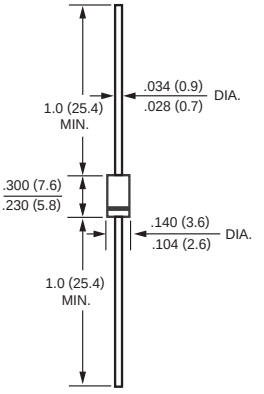

Dimensions in inches and (millimeters)

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 (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	R2500	R3000	R4000	R5000	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	2500	3000	4000	5000	Volts
Maximum RMS Volts	V_{RMS}	1750	2100	2800	3500	Volts
Maximum DC Blocking Voltage	V_{DC}	2500	3000	4000	5000	Volts
Maximum Average Forward Rectified Current at T_A = 50°C	I_O	200				mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30				Amps
Typical Junction Capacitance (Note)	C_J	30				pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 175				°C

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

CHARACTERISTICS		SYMBOL	R2500	R3000	R4000	R5000	UNITS
Maximum Instantaneous Forward Voltage at 0.2A DC		V_F	3.0	4.0	5.0		Volts
Maximum DC Reverse Current	@T_A = 25°C	I_R	5.0				uAmps
at Rated DC Blocking Voltage	@T_A =100°C		50				
Maximum Full Load Reverse Current Average, Full Cycle .375", (9.5mm) lead length at T_L = 75°C			30				uAmps

NOTES : Measured at 1 MHz and applied reverse voltage of 4.0 volts.

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RATING AND CHARACTERISTIC CURVES (R2500 THRU R5000)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

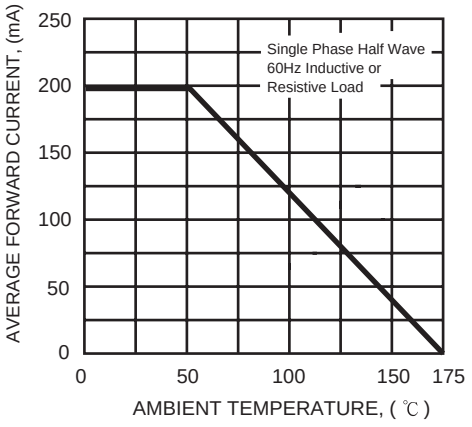

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

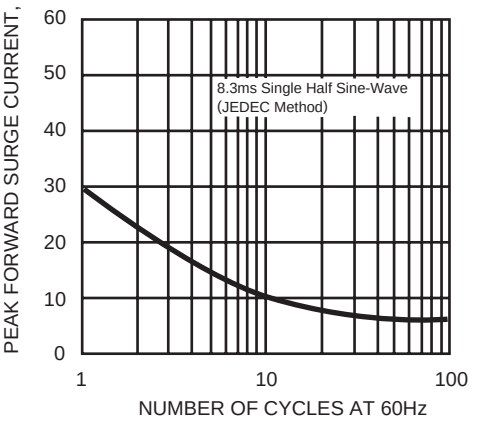

FIG. 3 - TYPICAL REVERSE CHARACTERISTICS