

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

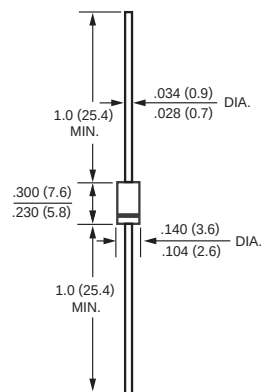
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.35 gram

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%.



DO-15



MAXIMUM RATINGS (At TA = 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 TA = 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}	-55 to +150				°C

ELECTRICAL CHARACTERISTICS (At TA = 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.

RATING AND CHARACTERISTIC CURVES (R2500 THRU R5000)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

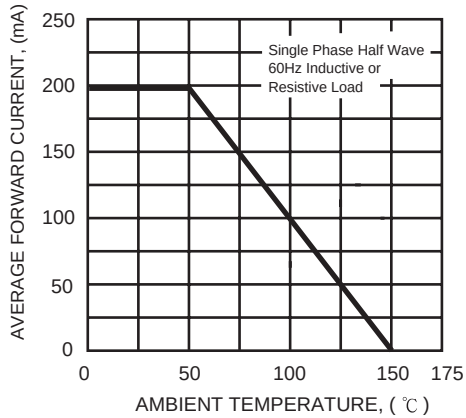


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

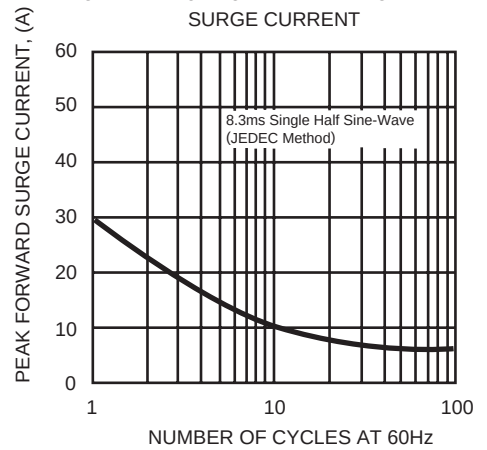


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

