

# WILLAS

R2500  
THRU  
R5000

## HIGH VOLTAGE SILICON RECTIFIER

VOLTAGE RANGE 2500 to 5000 Volts CURRENT 0.2 Ampere

**Pb Free Product**

### FEATURES

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

### MECHANICAL DATA

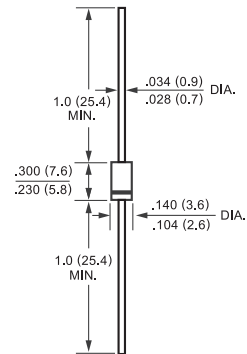
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.35 gram

### 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



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	R2500	R3000	R4000	R5000	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	2500	3000	4000	5000	Volts
Maximum RMS Volts	V <sub>RMS</sub>	1750	2100	2800	3500	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	2500	3000	4000	5000	Volts
Maximum Average Forward Rectified Current at TA = 50°C	I <sub>O</sub>	200				mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30				Amps
Typical Junction Capacitance (Note)	C <sub>J</sub>	30				pF
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175				°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 <sub>F</sub>	3.0	4.0	5.0		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5.0				uAmps
		50				
Maximum Full Load Reverse Current Average, Full Cycle .375", (9.5mm) lead length at TL = 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

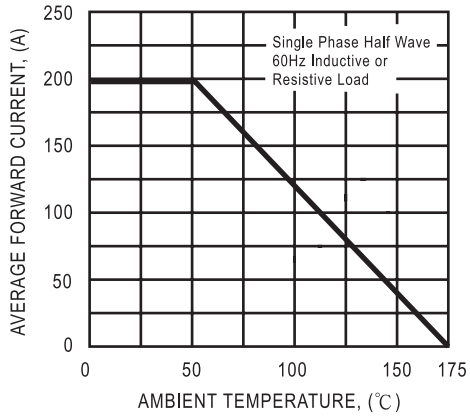


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

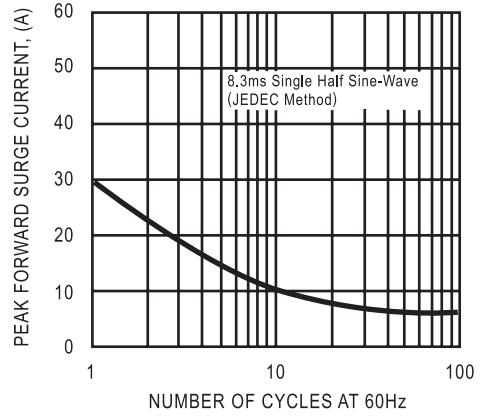


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

