

## HIGH VOLTAGE SILICON RECTIFIER

**VOLTAGE RANGE 1200 to 2000 Volts CURRENT 0.2 to 0.5 Ampere**

### FEATURES

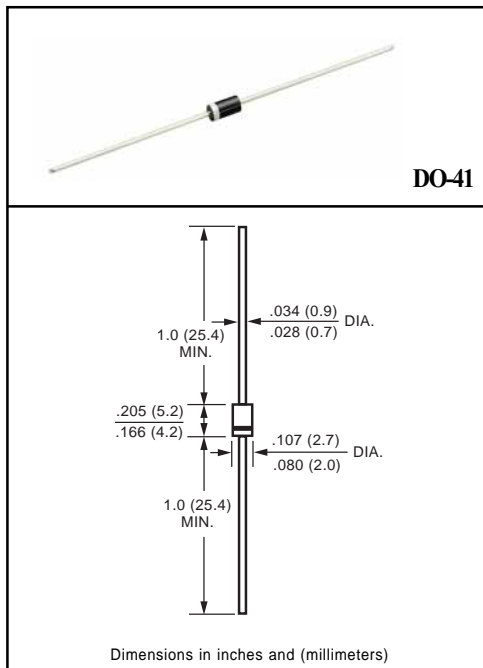
- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

### 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%.



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

RATINGS	SYMBOL	R1200	R1500	R1800	R2000	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	1200	1500	1800	2000	Volts
Maximum RMS Volts	VRMS	840	1050	1260	1400	Volts
Maximum DC Blocking Voltage	VDC	1200	1500	1800	2000	Volts
Maximum Average Forward Rectified Current at TA = 50°C	IO	500			200	mAmps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30				Amps
Typical Junction Capacitance (Note)	CJ	30				pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 175				°C

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

CHARACTERISTICS		SYMBOL	R1200	R1500	R1800	R2000	UNITS
Maximum Instantaneous Forward Voltage at 0.5A/0.2A DC		V <sub>F</sub>	2.0			3.0	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0				uAmps
	@T <sub>A</sub> =100°C		50				
Maximum Full Load Reverse Current Average, Full Cycle .375", (9.5mm) lead length at T <sub>L</sub> = 75°C				30			

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

## RATING AND CHARACTERISTIC CURVES ( R1200 THRU R2000 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

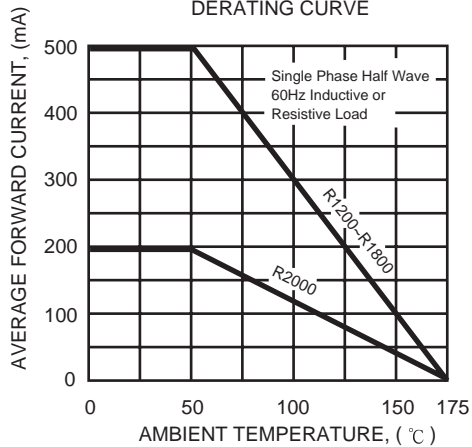


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

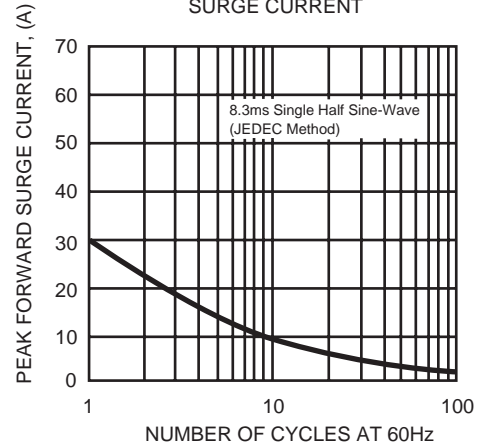


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

