

**SILICON RECTIFIER**

**VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere**

**FEATURES**

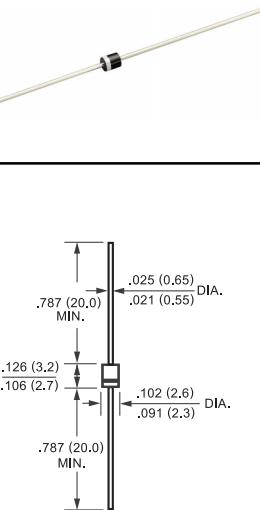
- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

**MECHANICAL DATA**

- \* Case: Molded plastic black body
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.19 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%.



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 25°C	I <sub>O</sub>					1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>					25			Amps
Typical Junction Capacitance (Note)	C <sub>J</sub>				15				pF
Typical Thermal Resistance	R <sub>θ JA</sub>				60				°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>				-65 to + 150				°C

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

CHARACTERISTICS	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>				1.1				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>				5.0				uAmps
Maximum Full Load Reverse Current Full Cycle Average .375" (9.5mm) lead length at T <sub>L</sub> = 75°C					50				uAmps

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

1998-8

# RATING AND CHARACTERISTIC CURVES ( 1A1 THRU 1A7 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

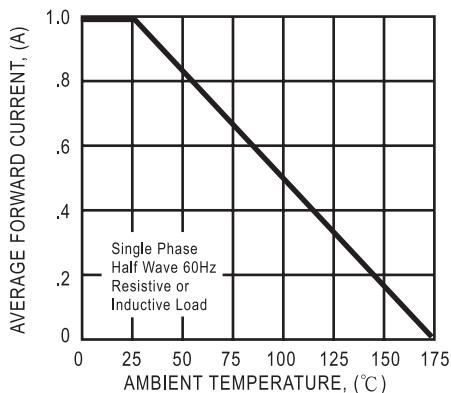


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

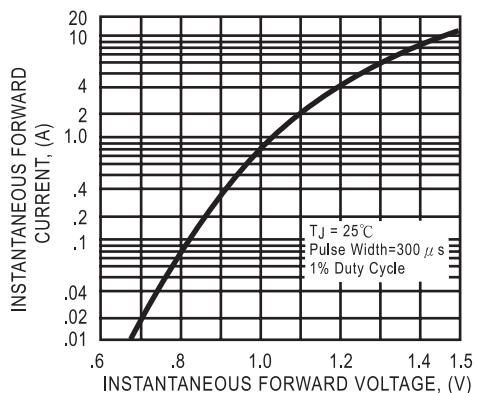


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

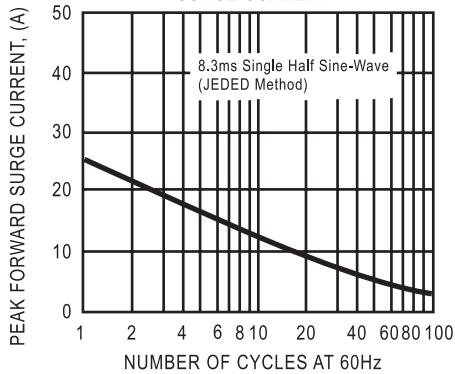


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

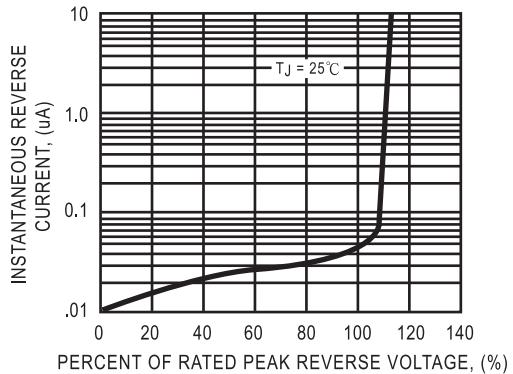


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

