

**SILICON RECTIFIER**

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

**FEATURES**

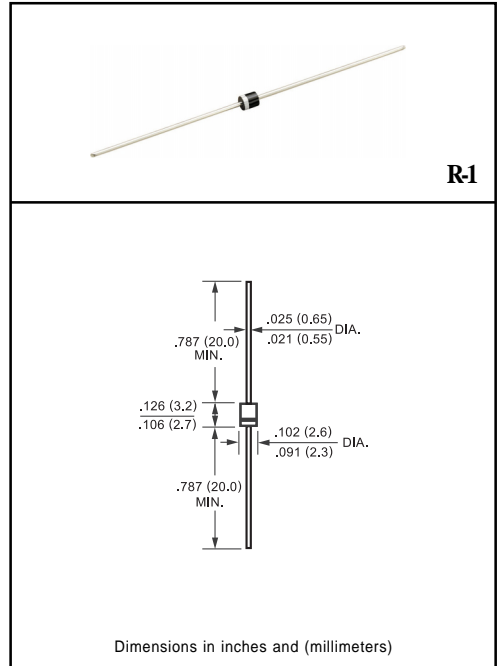
- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

**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%.



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

RATINGS		SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNITS	
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage		VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at TA = 25°C		IO	1.0							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM					25				Amps
Typical Junction Capacitance (Note)		CJ					15				pF
Typical Thermal Resistance		RθJA					60				°C/W
Operating and Storage Temperature Range		TJ, TSTG					-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		VF					1.1				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ TA = 25°C	IR					5.0				uAmps
	@ TA = 100°C						50				
Maximum Full Load Reverse Current Full Cycle Average .375" (9.5mm) lead length at TL = 75°C							100				uAmps

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

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

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

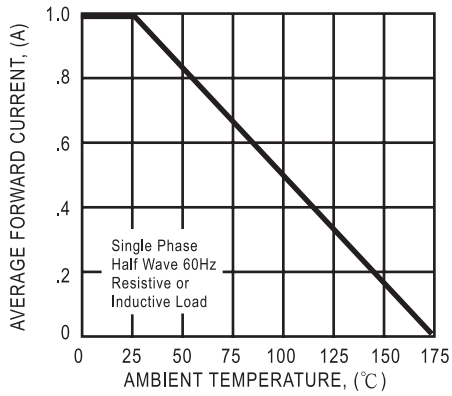


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

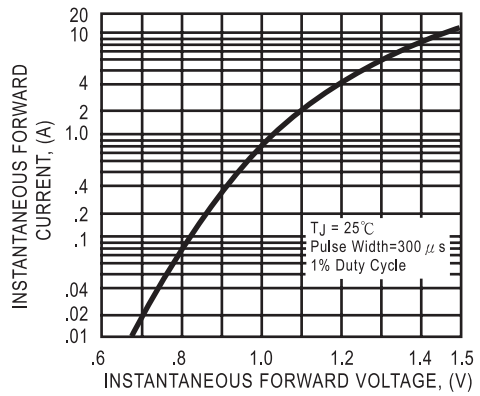


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

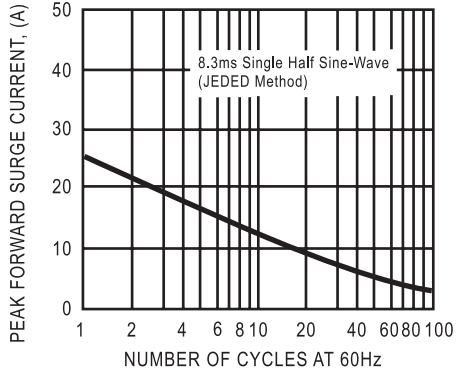


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

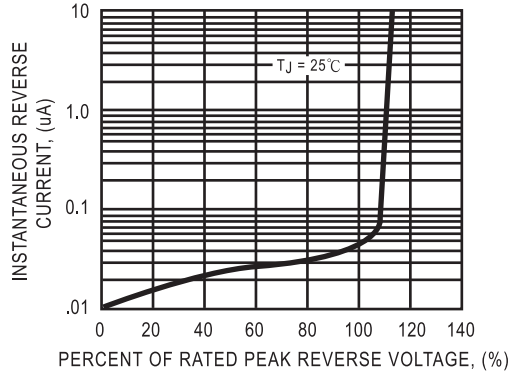


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

