

# 1A1 THRU 1A7

## SILICON RECTIFIER

## VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

### **FEATURES**

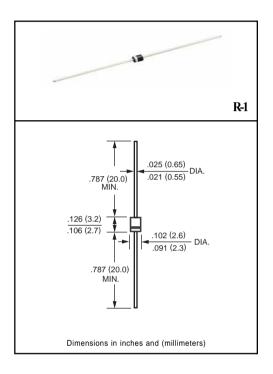
- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

#### **MECHANICAL DATA**

- \* Case: Molded plastic black body
- \* Epoxy: Device hasUL flammability classification 94V-O
- \* 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	lo	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	-55 to + 150							۰C

#### 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	@TA = 25°C		5.0							uAmps
at Rated DC Blocking Voltage	@Ta = 100°C	la la	50							
Maximum Full Load Reverse Current Full Cycle Average .375" (9.5mm) lead length at TL = 75°C		lR	100							uAmps

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

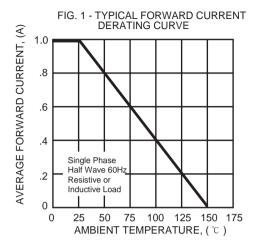
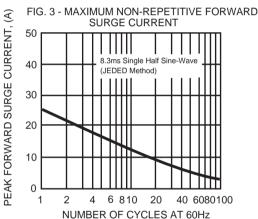
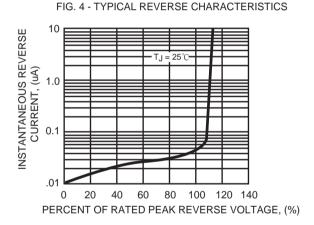
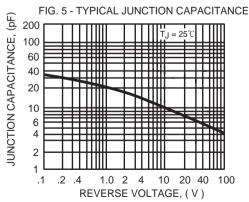


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS 20 10 INSTANTANEOUS FORWARD 4 2 CURRENT, (A) 1.0 .4 .2 TJ = 25 ℃ .1 Pulse Width=300uS 1% Duty Cycle .04 .02 .01 .6 .8 1.0 1.2 1.4 1.5 INSTANTANEOUS FORWARD VOLTAGE, (V)







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