



1A1 THRU 1A7

GENERAL PURPOSE PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts

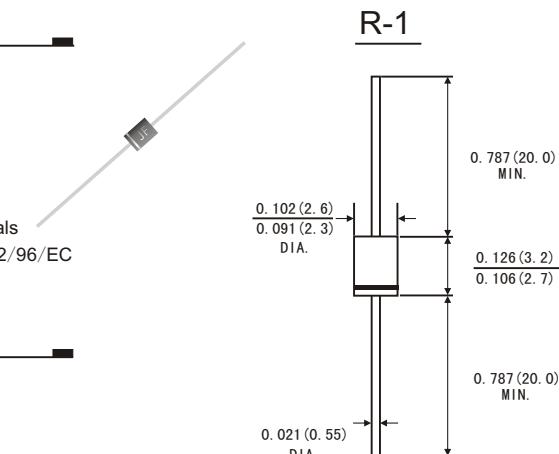
Forward Current -1.0Ampere

## FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

## MECHANICAL DATA

- Case:** R-1 molded plastic body
- Terminals:** Lead solderable per MIL-STD-750, method 2026
- Polarity:** Color band denotes cathode end
- Mounting Position:** Any
- Weight:** 0.007 ounce, 0.19 gram



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified, Single phase, half wave 60Hz,, resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	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 0.375"(9.5mm) lead length T <sub>A</sub> =25°C	I <sub>(AV)</sub>				1.0				Amp
Peak forward surge current (8.3ms half sine-wave superimposed on rated load (JEDEC method)at T <sub>A</sub> =75°C	I <sub>FSM</sub>				25.0				Amps
Maximum instantaneous forward voltage at 1.0 A	V <sub>F</sub>			1.1					Volts
Maximum reverse current at rated DC blocking voltage T <sub>A</sub> = 25°C	I <sub>R</sub>			5.0					μA
T <sub>A</sub> = 100°C				500					
Typical thermal resistance (Note 2)	R <sub>θJA</sub>			60.0					°C/W
Typical junction capacitance (Note 1)	C <sub>J</sub>			15.0					pF
Operating and Storage temperature Range	T <sub>J</sub> T <sub>STG</sub>			-65 to +150					°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V dc.

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm)lead length ,p.c.b.  
mounted

# RATINGS AND CHARACTERISTIC CURVES 1A1 THRU 1A7

FIG.1-FORWARD CURRENT DERATING CURVE

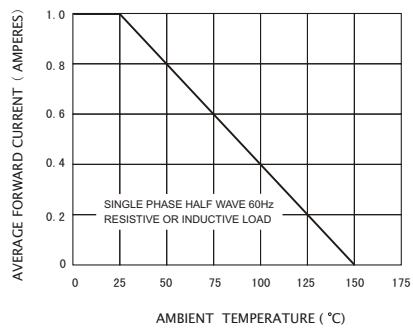


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

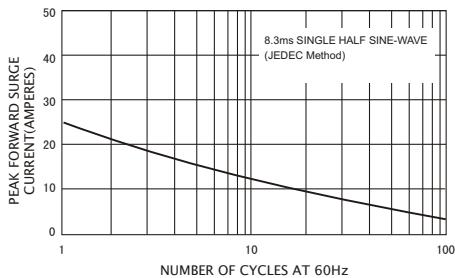


FIG.5-TYPICAL JUNCTION CAPACITANCE

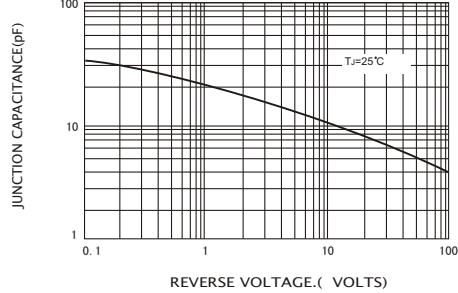


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

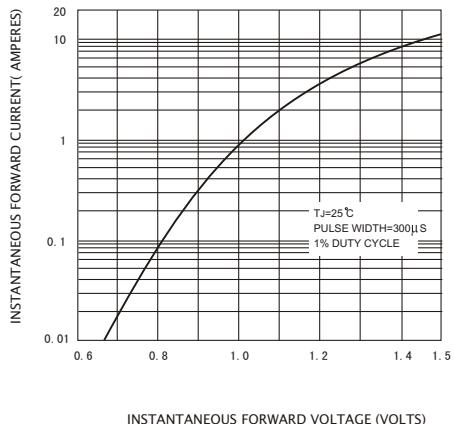


FIG.4-TYPICAL REVERSE CHARACTERISTICS

