



# 1A1 THRU 1A7

## GENERAL PURPOSE SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts    Forward Current - 1.0 Ampere

### 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:  
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

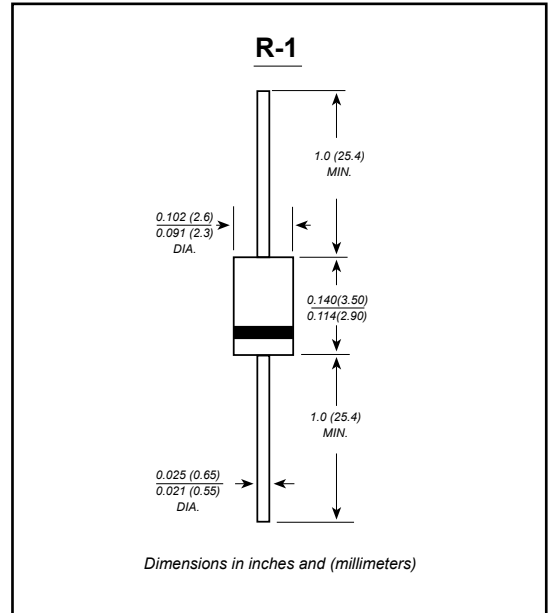
**Case:** R-1 molded plastic body

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.007 ounce, 0.20 grams



### 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 current derate by 20%.

Characteristic	SYMBOLS	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=25^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25.0							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	5.0 50.0							$\mu\text{A}$
Typical junction capacitance (NOTE 1)	$C_J$	15.0							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +150							$^\circ\text{C}$

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

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



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## RATINGS AND CHARACTERISTIC CURVES

