

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

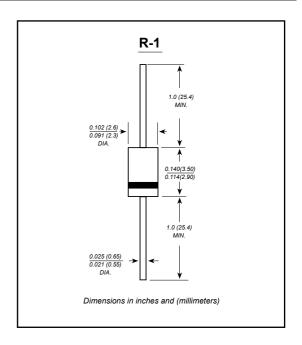
Terminals: Plated axial leads, solderable per MIL-STD-750,

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	Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at Ta=25°C	l _(AV)	1.0							А
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	lfsm	25.0							А
Maximum instantaneous forward voltage at 1.0A	VF	1.1							V
Maximum DC reverse current Ta=25°C at rated DC blocking voltage Ta=100°C	lR	5.0 50.0							μΑ
Typical junction capacitance (NOTE 1)	Сл	15.0							pF
Typical thermal resistance (NOTE 2)	RθJA	50.0							°C/W
Operating junction and storage temperature range	ТЈ,Тѕтс	-50 to +150							°C

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

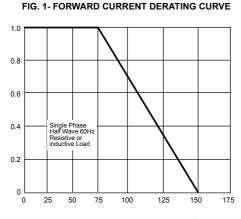
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



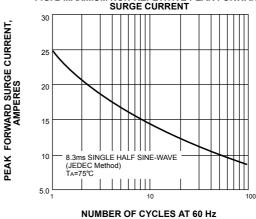
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RATINGS AND CHARACTERISTIC CURVES

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

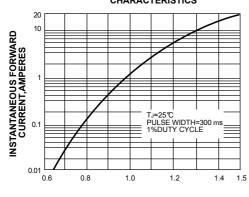






AMBIENT TEMPERATURE.°C

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE, VOLTS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

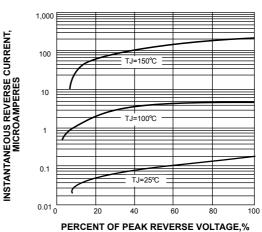


FIG. 5-TYPICAL JUNCTION CAPACITANCE

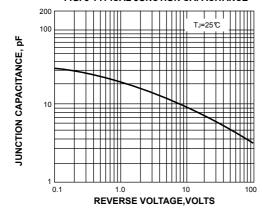
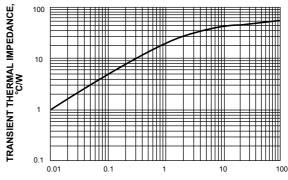


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.