1 AMP SILICON RECTIFIERS

1A1 THRU 1A7

TECHNICAL SPECIFICATION

FEATURES

- *Low cost construction utilizing void - free moulded plastic technique*
- *Plastic package has Underwriters Laboratories Flammability Classification 94V-0*
- *Diffused junction*
- *Low leakage*
- *High temperature soldering capability : 250°C/10 seconds/9.5mm (.375in.) lead length at 2.3kg (5lb) tension*
- *Easily cleaned with Freon, Alcohol, Chlorothene and other similar solvents*

VOLTAGE
50 to 1000 Volts

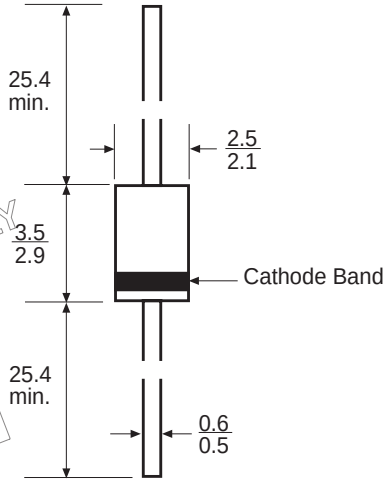
CURRENT
1.0 Amp

MECHANICAL DATA

Case : R-1, moulded plastic.
Terminals : Plated axial leads, solderable per MIL-STD-202, Method 208.
Polarity : Colour band denotes cathode end.
Mounting Position : Any
Weight : 0.2 grams (0.008 ounce)

DIMENSIONS - millimeters

R-1



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%.

		Symbols	1A1	1A2	1A3	1A4	1A5	1A6	1A7	Units
Maximum Recurrent 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 9.5mm (.375in.) Lead Length at T_A = 25°C		$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load		I_{FSM}	10							A
Maximum Instantaneous Forward Voltage at 1.0A		V_F	1.0							V
Maximum Reverse Current at Rated DC Blocking Voltage	T_A = 25°C	I_R	5.0							µA
	T_A = 100°C		50							µA
Maximum Full load Reverse Current Full Cycle Average, 9.5mm (.375in.) Lead Length at T_L = 75°C		$I_{R(AV)}$	30							µA
Typical Junction Capacitance (see Note 1)		C_J	15							pF
Typical Thermal Resistance (see Note 2)		R_{THja}	60							°C/W
Operating Temperature Range		T_J	- 65 to + 150							°C
Storage Temperature Range		T_{STG}	- 65 to + 150							°C

Notes :
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal Resistance from Junction to Ambient

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

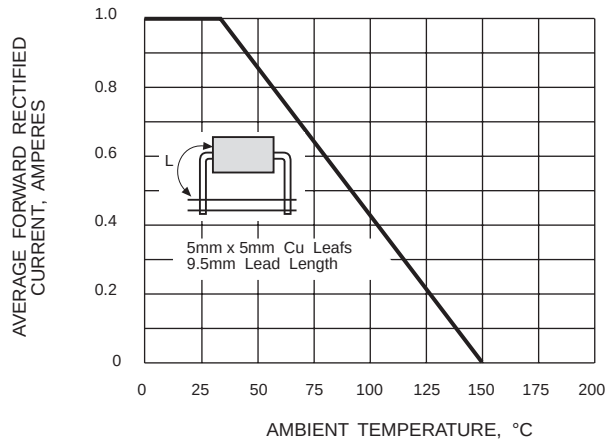


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

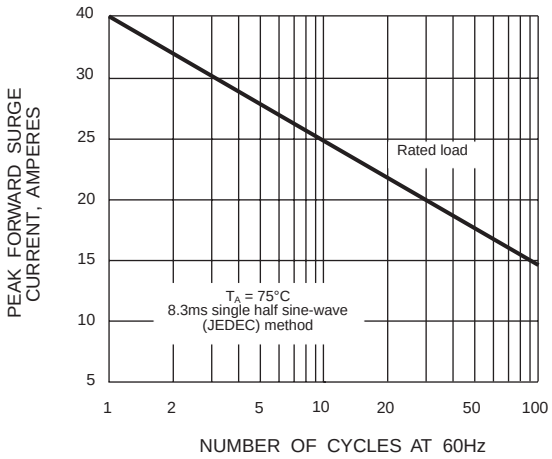


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

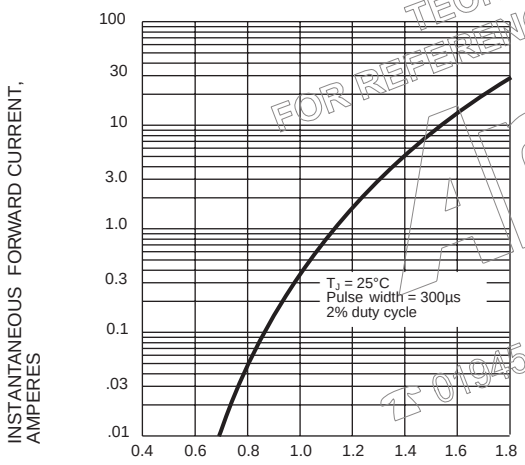


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

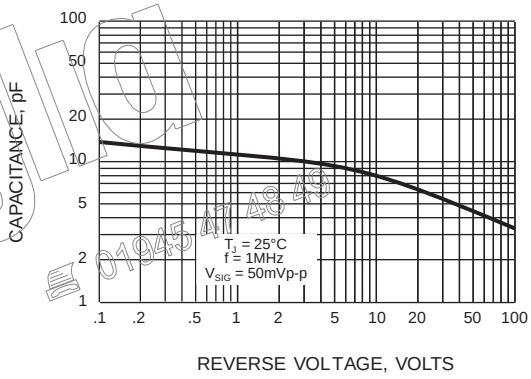
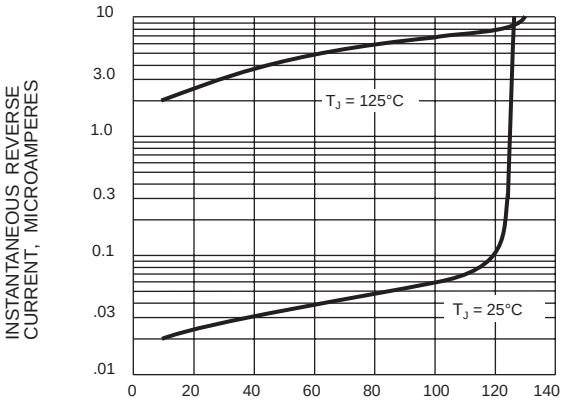
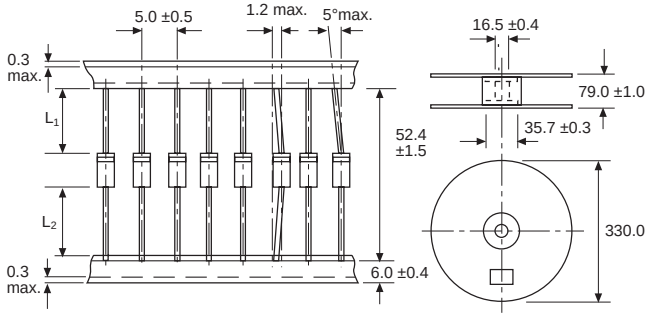


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



TAPING AND REELING SPECIFICATION



Dimensions - millimeters

NOTES : Each component lead sandwiched between tapes for 3.2mm minimum

Cumulative pitch tolerance 2.0mm/10 pitch

Body eccentricity L_1 - L_2 : 1.0mm maximum