1A1 THRU 1A7

MINIATURE GENERAL PURPOSE PLASTIC SILICON RECTIFIER

GROWCHILD ELECTRONICS™

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **1.0 AMPERE**

http://www.njzrg.com

FEATURES

· Low forward voltage drop

· High current capability

· High capability

· High surge current capability

· Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

Case: Molded plastic, R-1

Epoxy: UL 94V-O rate flame retardant

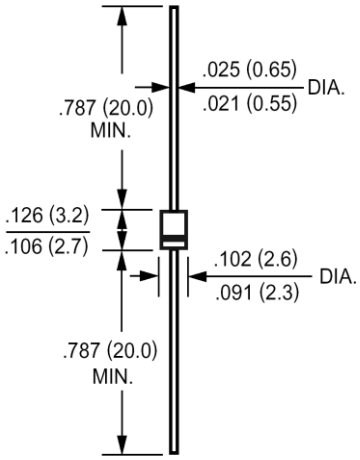
Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.0064ounce, 0.181gram

R-1



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60H_Z, 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	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	**Volts**
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=25℃	$I_{(AV)}$	1.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25							**Amp**
Maximum Forward Voltage at 1.0A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage T_A=100℃		500							
Maximum Full Load Reverse Current Full Cycle Average at T_L=75℃		100							**uAmp**
Typical Junction Capacitance (Note 1)	C_J	15							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60							**℃/W**
Operating Junction Temperature Range	T_J	-55 to +150							**℃**
Storage Temperature Range	Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted.

1A1 THRU 1A7

MINIATURE GENERAL PURPOSE PLASTIC SILICON RECTIFIER

GROWCHILD ELECTRONICS™

http://www.njzrg.com

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

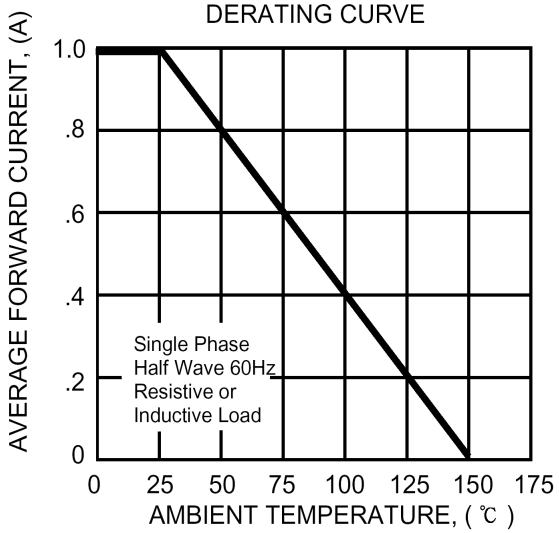


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

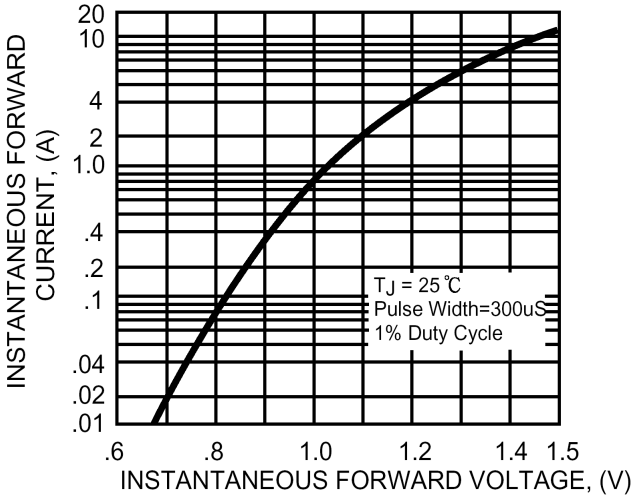


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

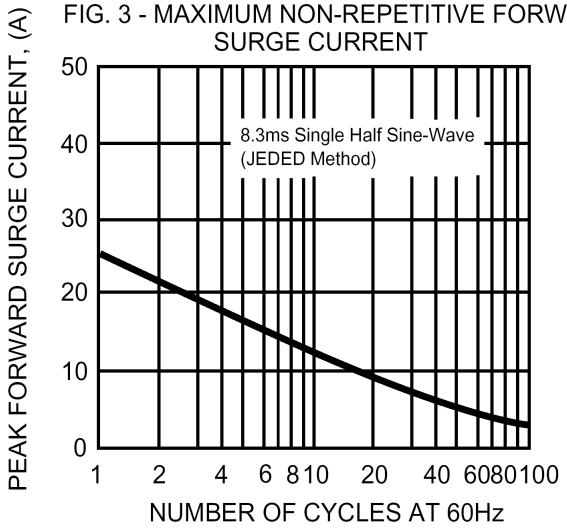


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

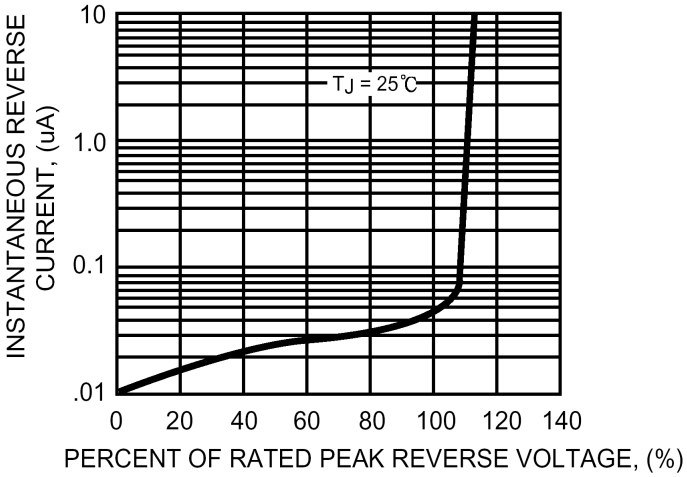


FIG. 5 - TYPICAL JUNCTION CAPACITANCE