



# DATA SHEET

## 1A1~1A7

### MINIATURE PLASTIC SILICON RECTIFIER

**VOLTAGE** 50 to 1000 Volts **CURRENT** 1.0 Amperes

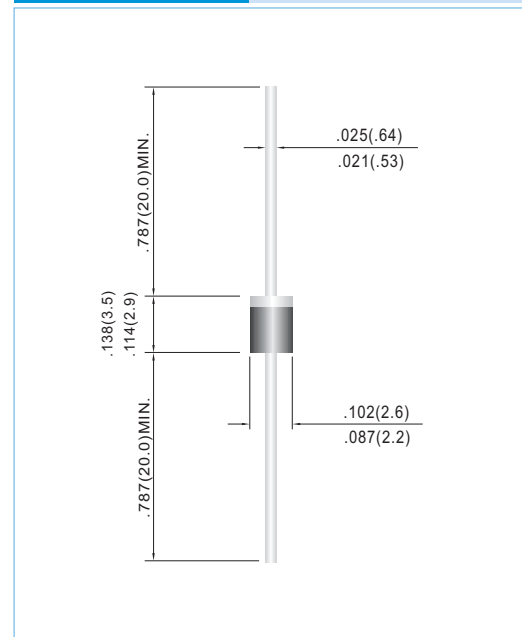
**R-1** Unit: inch(mm)

#### FEATURES

- High reliability.
- Low leakage.
- Low forward voltage drop.
- High current capability.
- Exceeds environmental standards of MIL-S-19500 / 228
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

- Case: Molded plastic, R-1
- Epoxy: UL 94V-O rate flame retardant.
- Lead: MIL-STD-750 method 2026
- Mounting Position: Any
- Weight: 0.0064 ounce, 0.181 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

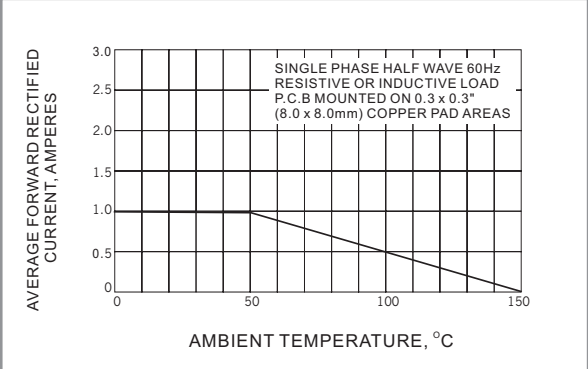
PARAMETER	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=50^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1.0A	$V_F$	1.1							V
Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$	5.0 50							$\mu\text{A}$
Typical Junction capacitance (Note 1)	$C_J$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	60							$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 TO +150							$^\circ\text{C}$

NOTES:

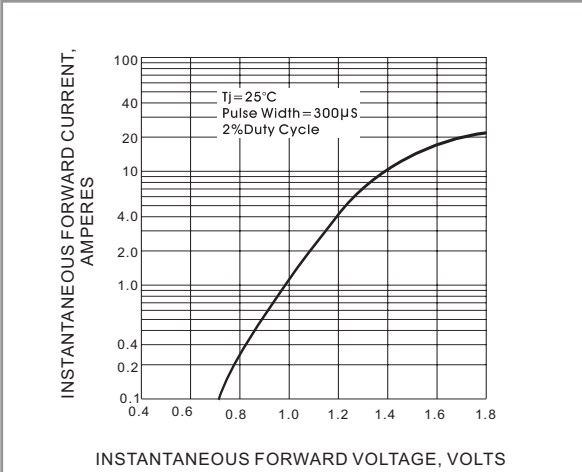
1. Measured at 1MHz and applied reverse voltage of 4.0 volts.



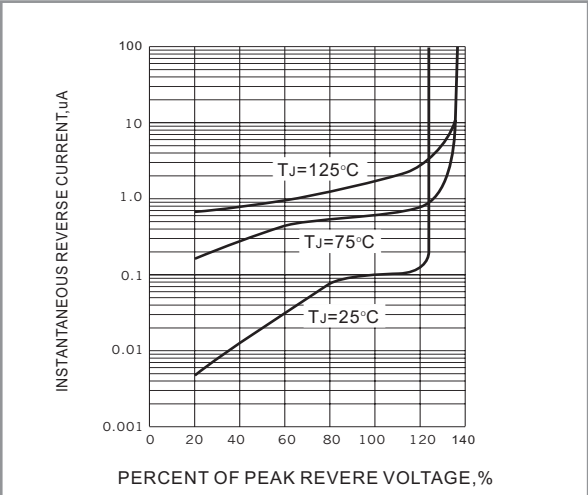
**RATING AND CHARACTERISTIC CURVES**



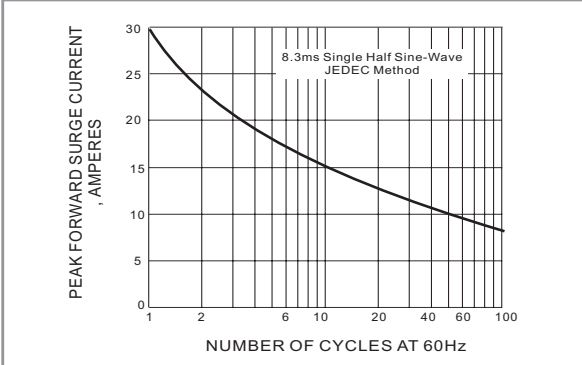
**Fig.1 FORWARD CURRENT DERATING CURVE**



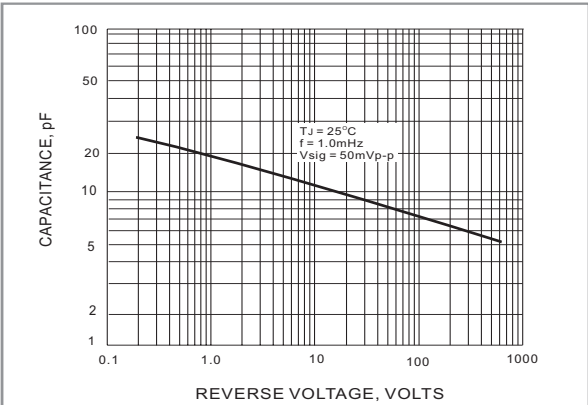
**Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.3 TYPICAL REVERSE CHARACTERISTICS**



**Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**Fig.5 TYPICAL JUNCTION CAPACITANCE**

**LEGAL STATEMENT**

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