



1A1~1A7

MINIATURE PLASTIC SILICON RECTIFIER

VOLTAGE 50 to 1000 Volt **CURRENT** 1 Ampere

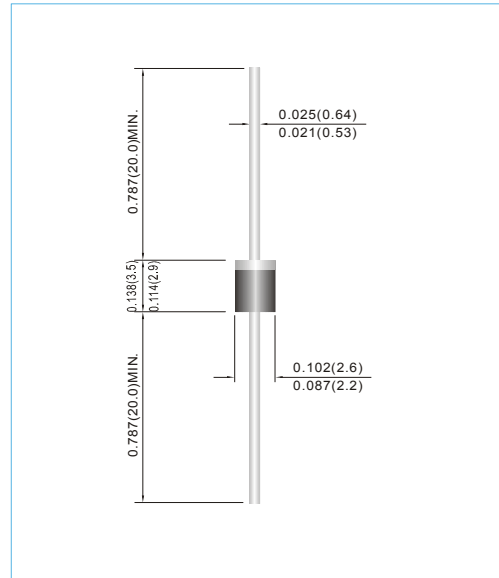
R-1 Unit : inch(mm)

FEATURES

- High reliability
- Low leakage
- Low forward voltage drop
- High current capability
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- Case: Molded plastic, R-1
- Epoxy: UL 94V-O rate flame retardant.
- Lead: MIL-STD-750 method 2026
- Weight: 0.0068 ounce, 0.193 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 0.375"(9.5mm) lead length	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30							A
Maximum Forward Voltage at 1A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^{\circ}C$ $T_J=100^{\circ}C$	I_R	5 500							μA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	60							$^{\circ}C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

NOTES : 1. Measured at 1MHz and applied reverse voltage of 4 volts.



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RATING AND CHARACTERISTIC CURVES

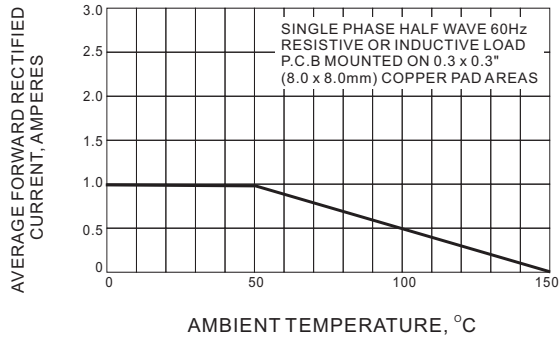


Fig.1 FORWARD CURRENT DERATING CURVE

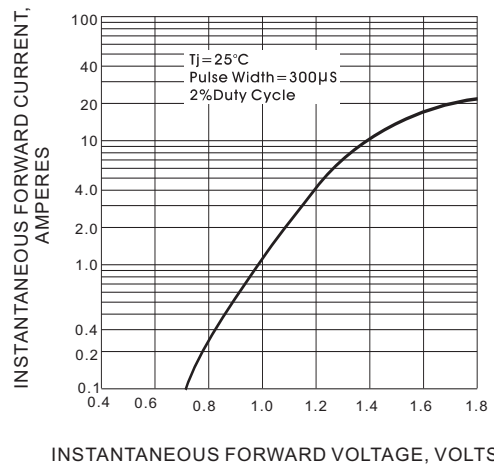


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

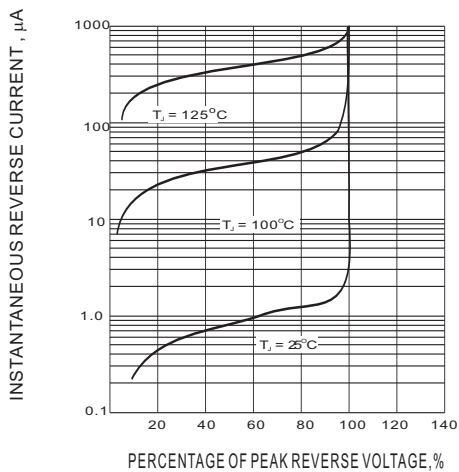


Fig.3-TYPICAL REVERSE CHARACTERISTIC

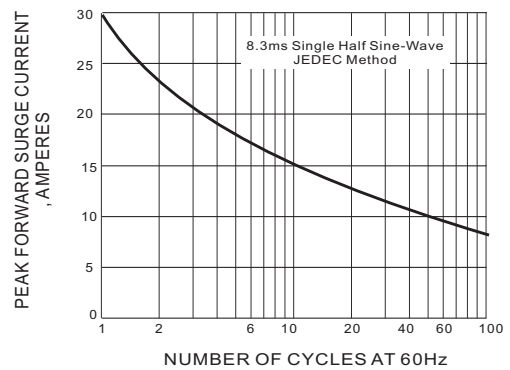


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

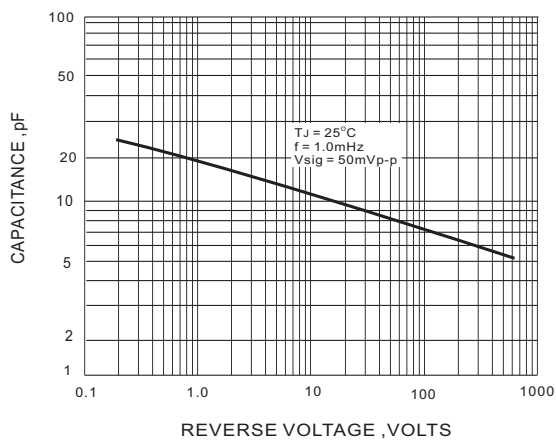


Fig.5 TYPICAL JUNCTION CAPACITANCE



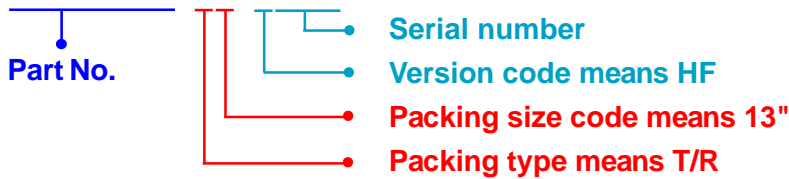
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Part No_packing code_Version

1A1_AX_00001
 1A1_AX_10001
 1A1_AY_00001
 1A1_AY_10001
 1A1_B0_00001
 1A1_B0_10001
 1A1_R2_00001
 1A1_R2_10001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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