



1 AMP GLASS PASSIVATED SILICON RECTIFIERS

S1A THRU S1M

TECHNICAL SPECIFICATION

FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Rating to 1000V PRV
- For surface mounted applications
- Surge overload rating to 30 Amperes peak
- Reliable low cost construction utilizing moulded plastic technique
- Lead solderable per MIL-STD-202 method 208

MECHANICAL DATA

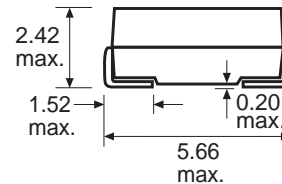
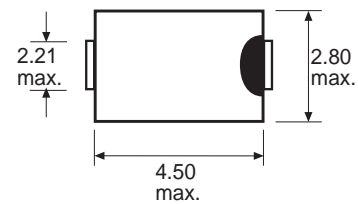
Case : JEDEC DO-214AC, moulded plastic.
 Terminals : Solder plated, solderable per MIL-STD 750, method 2026
 Polarity : Colour band denotes cathode end.
 Weight : 0.093 grams (0.003 ounce)

VOLTAGE
50 to 1000 Volts

CURRENT
1.0 Amp

DIMENSIONS - millimeters

DO-214AC



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%. T_L = Lead Temperature

	Symbols	S1A	S1B	S1D	S1G	S1J	S1K	S1M	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 at $T_L = 110^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	$T_A = 25^\circ\text{C}$						5.0	μA
		$T_A = 100^\circ\text{C}$						50	μA
Typical Junction Capacitance (see Note 1)	C_J	15							pF
Typical Thermal Resistance (see Note 2)	R_{THja}	75							$^\circ\text{C/W}$
Operating Temperature Range	T_J	- 65 to + 175							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 175							$^\circ\text{C}$

Notes :

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. P.C.B. mounted on 5.0mm sq. copper land areas

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

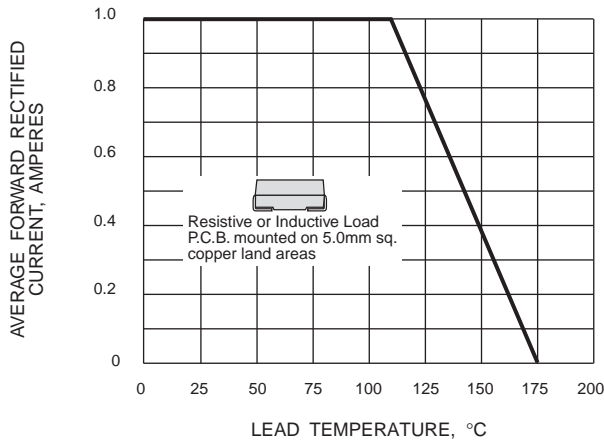


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

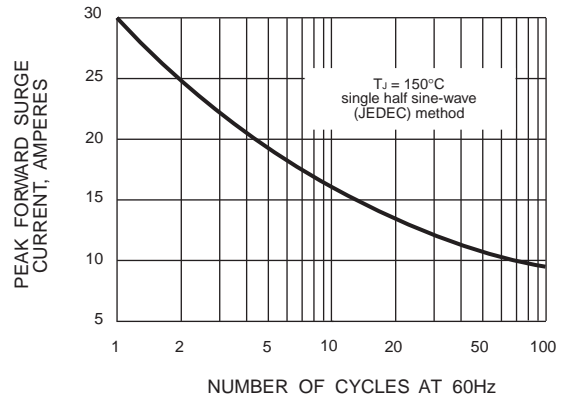


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

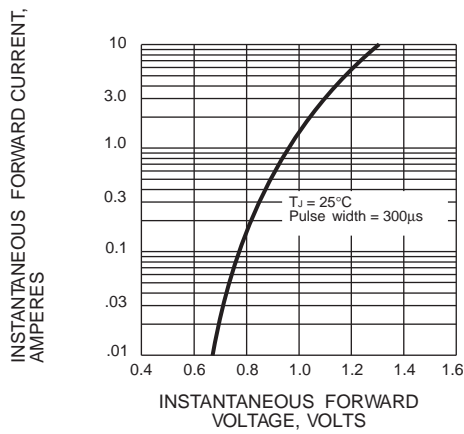
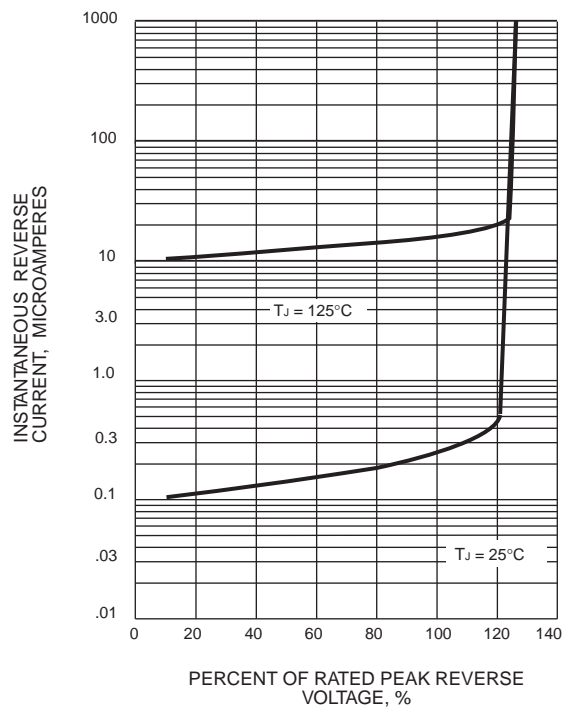


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



TAPE & REEL SPECIFICATION

