



SS1A-S thru SS1M-S

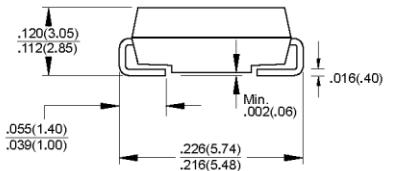
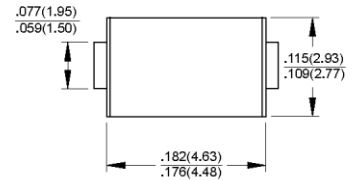
1.0 Amp. Super Fast Surface Mount Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 1.0 Ampere

Features

- ◆ For surface mounted application
- ◆ Low profile package
- ◆ Built-in strain relief,
- ◆ Ideal for automated placement
- ◆ Easy pick and place
- ◆ Superfast recovery time for high efficiency
- ◆ High temperature soldering:
250°C/10 seconds at terminals
- ◆ Plastic material used carries Underwriters Laboratory
Classification 94V-O



DO-214AC (SMAJ)



Dimensions in inches and (millimeters)

Mechanical Data

- ◆ Cases: New SMA molded plastic
- ◆ Terminals: Solder plated solderable per MIL-STD-750,
Method 2026
- ◆ Polarity: Indicated by cathode band
- ◆ Weight: 0.004 ounce, 0.11 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbols	SS 1A-S	SS 1B-S	SS 1C-S	SS 1D-S	SS 1F-S	SS 1G-S	SS 1J-S	SS 1K-S	SS 1M-S	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	800	1000	Volts
Maximum average forward rectified current See Fig. 1	I_{AV}	1.0									Amp
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0									Amps
Maximum instantaneous forward voltage @ 1.0A	V_F	0.95			1.25		1.40			Volts	
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R					5.0					μA μA
Maximum reverse recovery time (Note 1)	t_{rr}					35					nS
Typical junction capacitance (Note 2)	C_J	10			8						pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$					85		35			$^\circ\text{C/W}$
Operating temperature range	T_J					-55 to +125					$^\circ\text{C}$
Storage temperature range	T_{STG}					-55 to +150					$^\circ\text{C}$

- Notes:**
1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
 3. P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Area.

RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

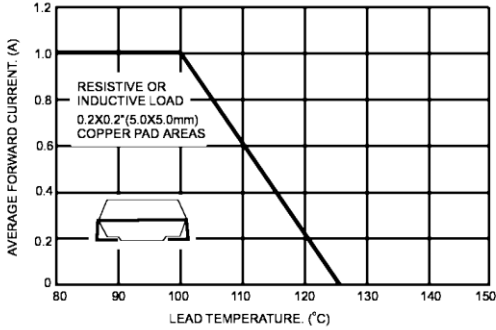


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

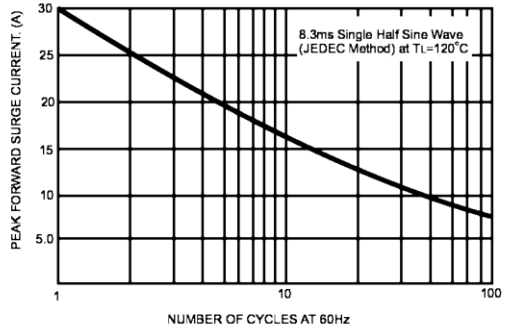


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

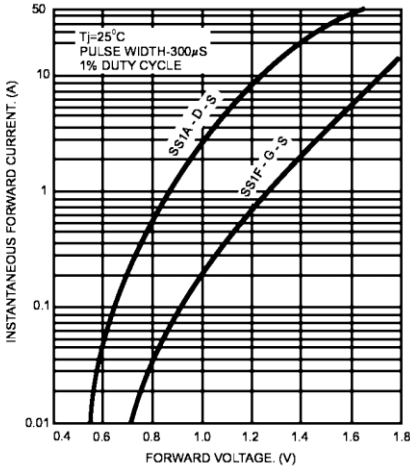


FIG.4- TYPICAL REVERSE CHARACTERISTICS

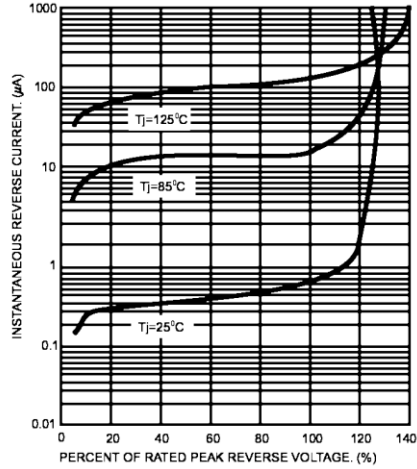


FIG.5- TYPICAL JUNCTION CAPACITANCE

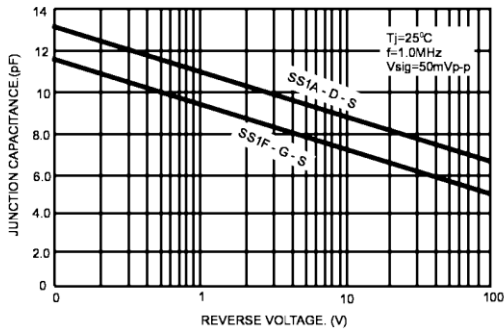


Figure :
New SMA Assembly

