

S1A THRU S1M 1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER



SMA

Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-0
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

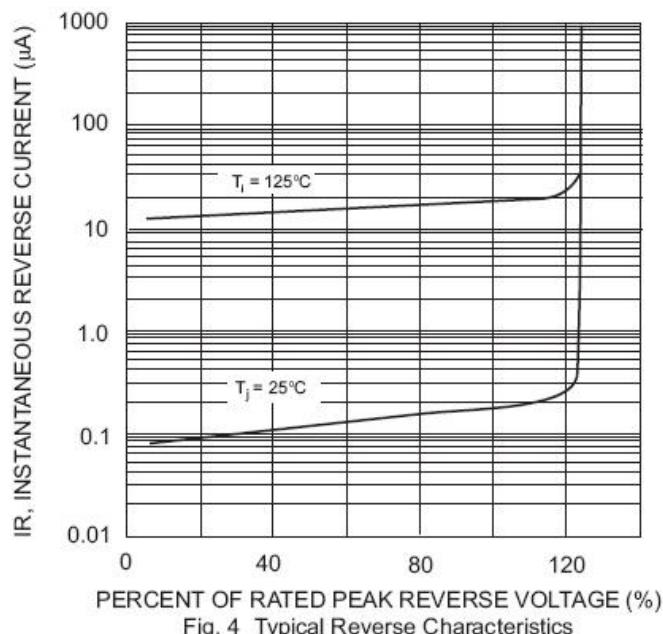
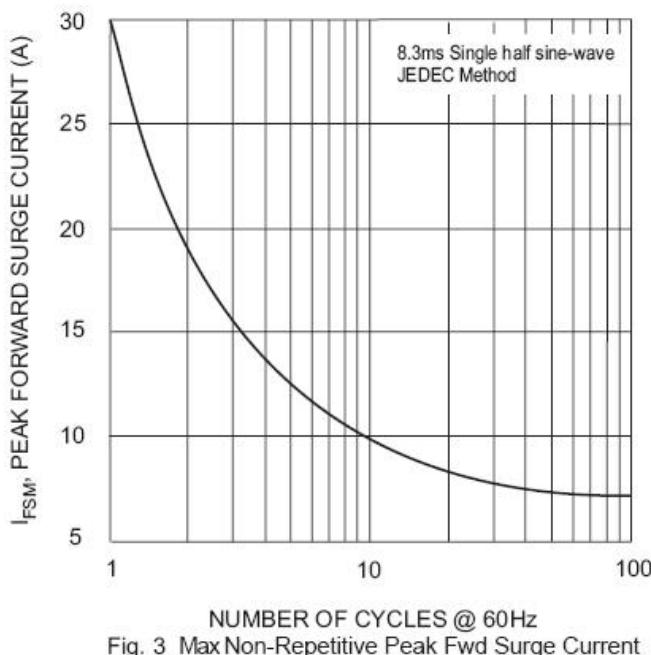
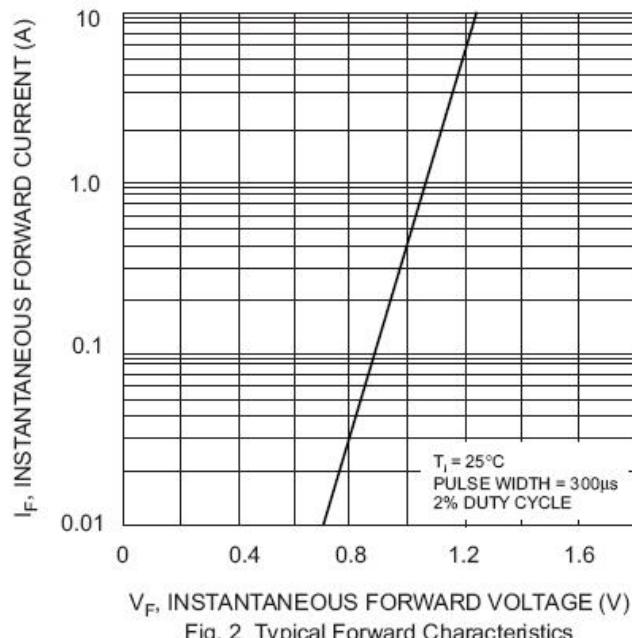
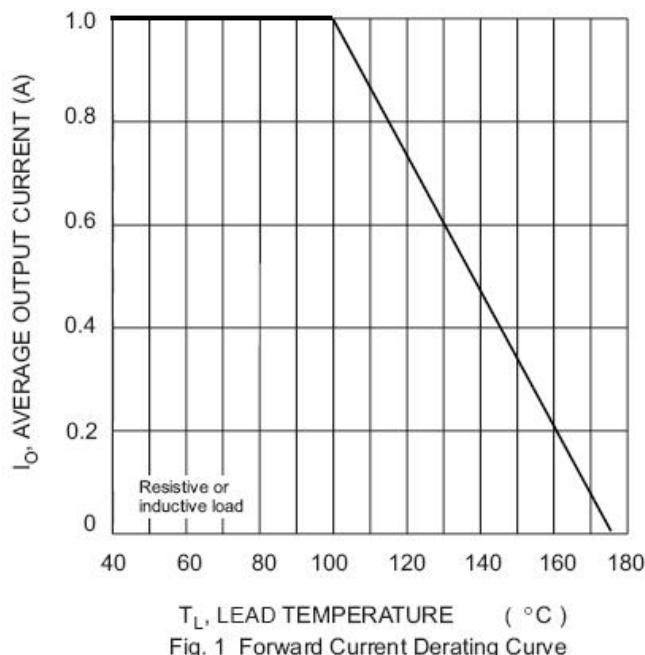
- Case: SMA molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.06 grams

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

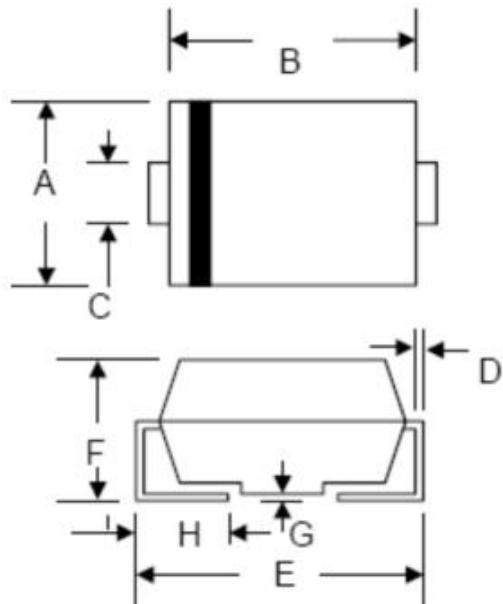
Type Number	Symbol	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_L=100^\circ\text{C}$	I_o				1.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				30				A
Forward Voltage @ $I_F=1.0\text{ A}$	V_F				1.10				V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_{RM}				5.0 200				μA
Reverse Recovery Time(Note1)	t_{rr}				2.5				μs
Typical Junction Capacitance(Note2)	C_J				15				pF
Typical Thermal Resistance Junction to Lead (Note 3)	$R_{\theta JL}$				30				$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_o, T_{STG}				-65 to +175				$^\circ\text{C}$

Note: 1. Reverse recovery condition $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Mounted on P.C.B. with 8.0mm² land areas.

Ratings and Characteristics Curves



Mechanical Dimensions SMA



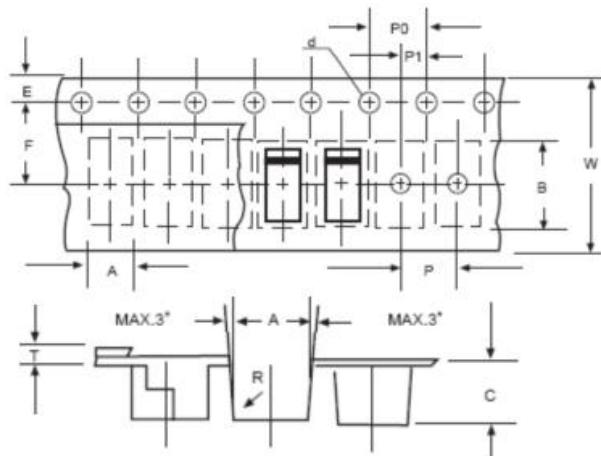
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.84	0.094	0.112
B	3.99	4.75	0.157	0.187
C	1.05	1.70	0.041	0.067
D	0.15	0.51	0.006	0.020
E	4.80	5.66	0.189	0.223
F	1.90	2.95	0.075	0.116
G	0.05	0.203	0.002	0.008
H	0.76	1.52	0.030	0.600

Ordering Information

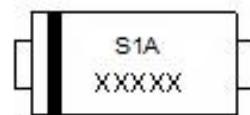
Device	Package	Shipping
S1A-S1M	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Carrier Tape Specification SMA



Marking Diagram



Where XXXXX is YYWWL

S1A = Type Number
 YY = Year
 WW = Week
 L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

SYMBOL	Millimeters	
	Min.	Max.
A	2.97	3.17
B	5.70	5.90
C	2.32	2.52
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
T	0.25	0.35
W	11.80	12.20

Technical Data
Data Sheet N0560, Rev. B**DISCLAIMER:**

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