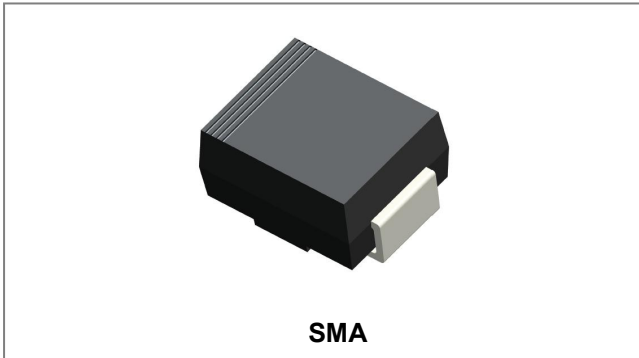


## S1A-F THRU S1M-F

### 1.0A SURFACE MOUNT PLASTIC SILICON RECTIFIER



#### Features

- For surface mounted application
- Low forward voltage drop
- High current capability
- High reliability
- 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

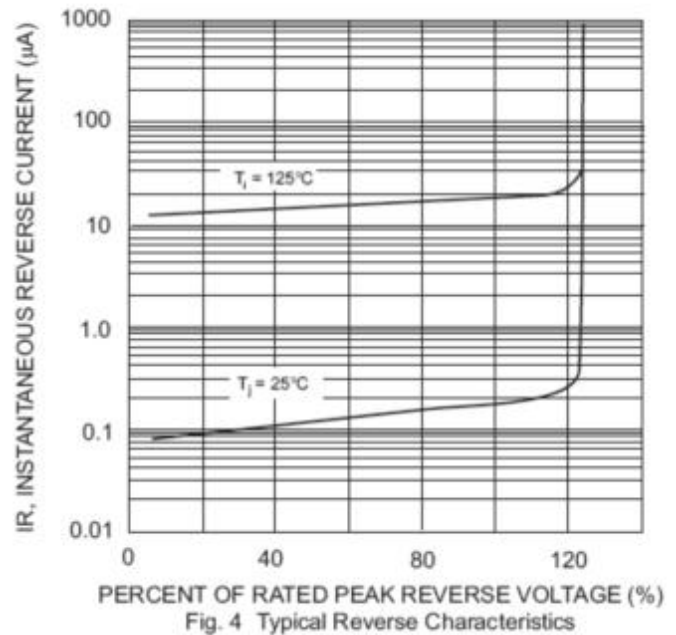
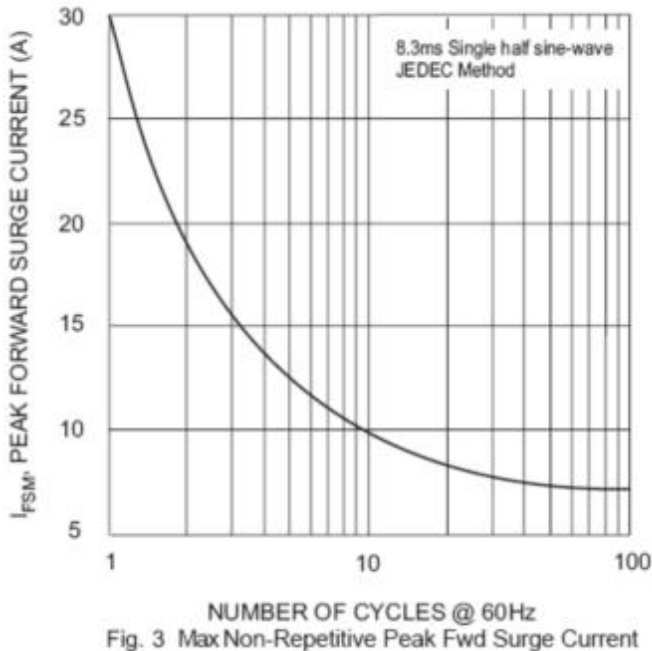
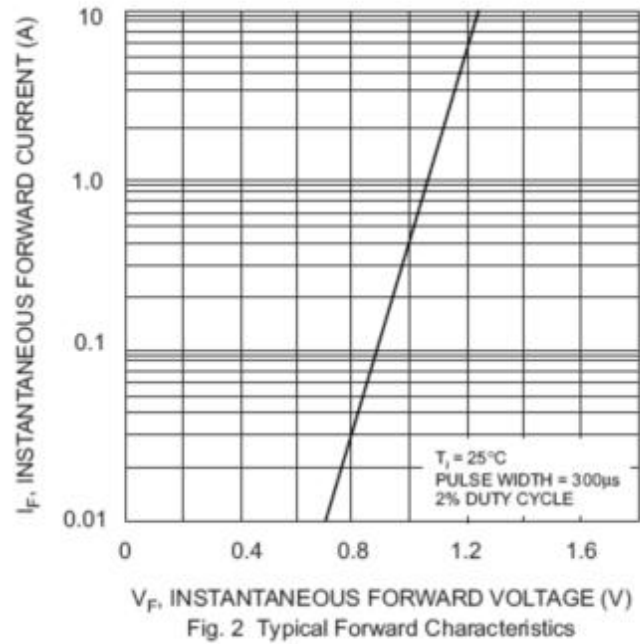
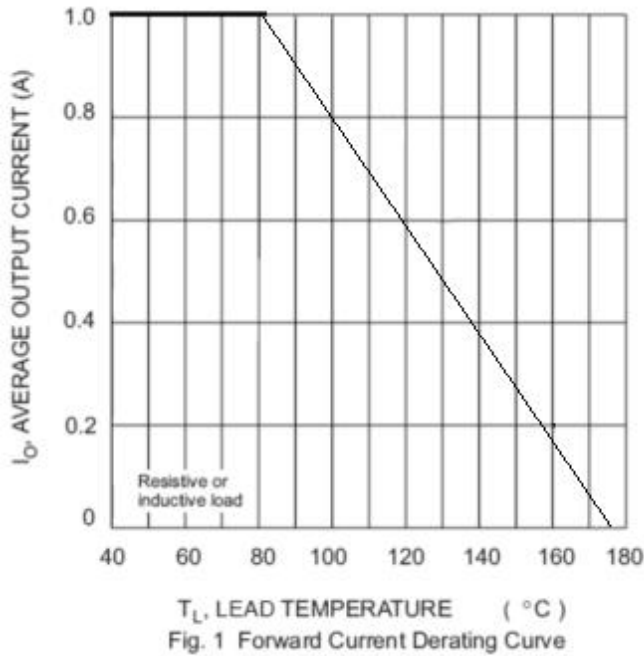
- Case: Molded Plastic SMA
- Terminals: Plated leads, solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any

#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

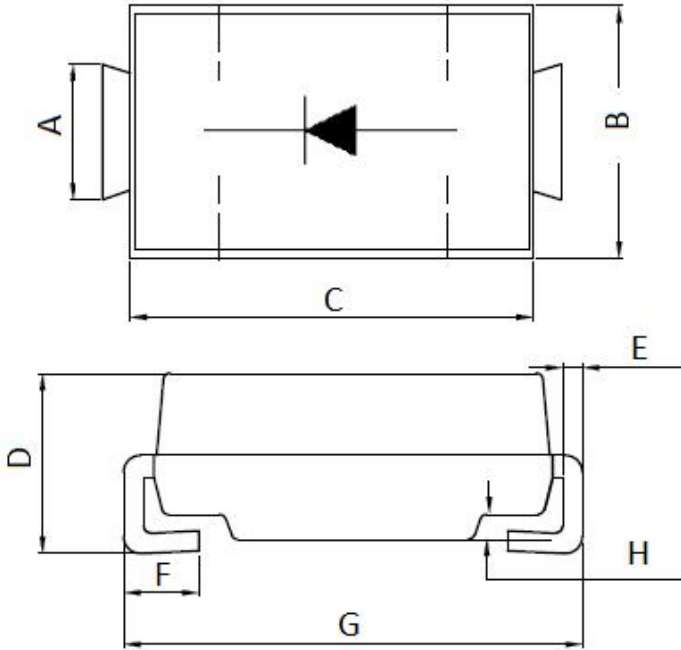
Characteristic	Symbol	S1A - F	S1B - F	S1D - F	S1G - F	S1J - F	S1K - F	S1M - F	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>RWM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average forward rectified output current @T <sub>L</sub> = 80°C	I <sub>O</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
Forward Voltage @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.10							V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	5.0							μA
At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C		200							
Reverse recovery time (Note 1)	t <sub>rr</sub>	2.5							μs
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	15							pF
Typical Thermal Resistance Junction to Ambient (Note 3)	R <sub>θJA</sub>	30							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175							°C

Note: 1. Reverse recovery condition I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A  
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. Resistance from Junction to Ambient at 0.375(9.5mm) lead length.

**Ratings and Characteristics Curves**



**Mechanical Dimensions SMA**



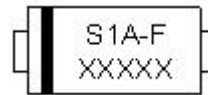
SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.20	1.70	0.047	0.067
B	2.40	2.70	0.094	0.105
C	3.90	4.30	0.152	0.167
D	2.00	2.50	0.079	0.098
E	0.150	0.305	0.006	0.012
F	0.76	1.52	0.030	0.060
G	4.80	5.28	0.188	0.208
H	0.051	0.203	0.002	0.008

**Ordering Information**

Device	Package	Shipping
S1(A-M)-F	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.

**Marking Diagram**

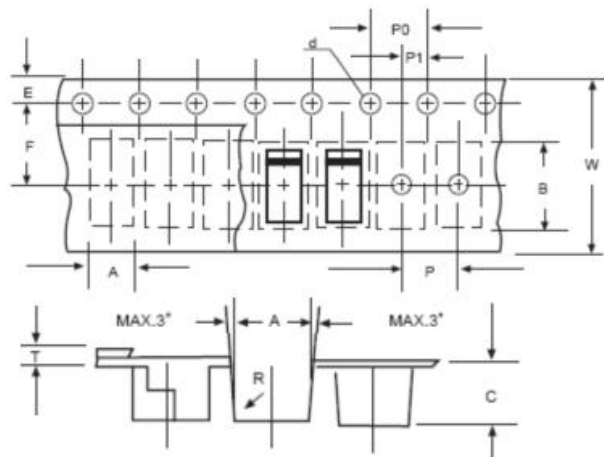


Where XXXXX is YYWWL

- S = Device Type
- 1 = Forward Current (1A)
- A = Reverse Voltage (50V)
- F = -F
- YY = Year
- WW = Week
- L = Lot Number

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

**Carrier Tape & Reel Specification SMA**



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

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