



# THE DATASHEET OF SS110



## SS12 THRU SS120 SCHOTTKY RECTIFIER



### Features

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low Power Loss, High Efficiency
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:  
250 C/10 seconds at terminals
- 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: JEDEC SMA molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounce, 0.093 grams
- Mounting Position: Any

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

Characteristic	Symbol	SS12	SS13	SS14	SS15	SS16	SS18	SS 110	SS 115	SS 120	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$										
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	50	60	80	100	150	200	V
DC Blocking Voltage	$V_R$										
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	71	105	140	V
Average Rectified Output Current @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	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 @ $I_F=1.0\text{ A}$	$V_F$	0.55		0.70		0.85		0.90			V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	0.5									mA
		10				5					
Junction Capacitance (Note 1)	$C_T$	50				35				pF	
Typical Thermal Resistance Junction to Lead (Note 2)	$R_{\theta JL}$	75									$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to +150									$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150									$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C  
2. Device mounted on FR-4 substrate, 1"\*1", 2oz, single-sided, PC boards with 0.1"\*0.15" copper pad.

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**Ratings and Characteristics Curves**

Fig. 1 Forward Current Derating Curve

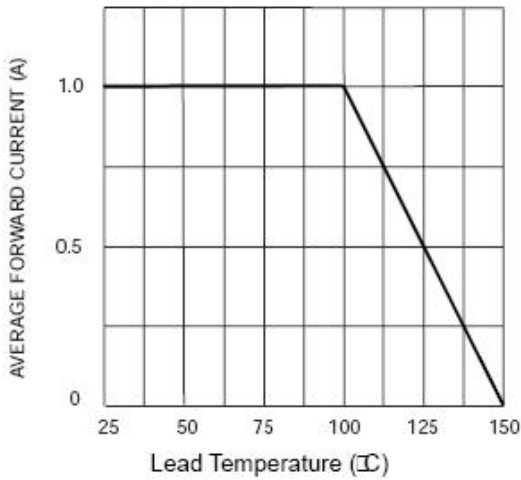


Fig. 2 Typ. Forward Characteristics

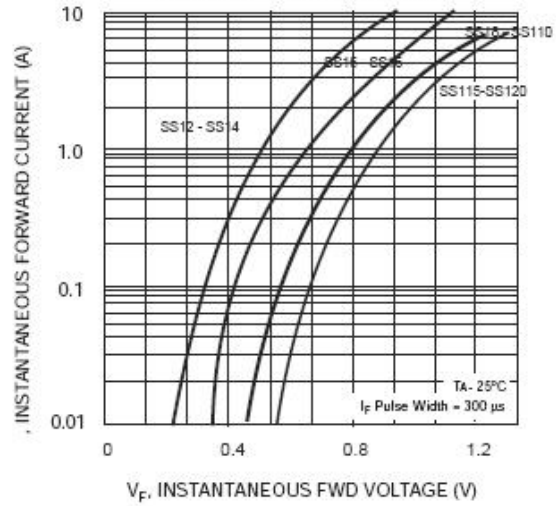


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

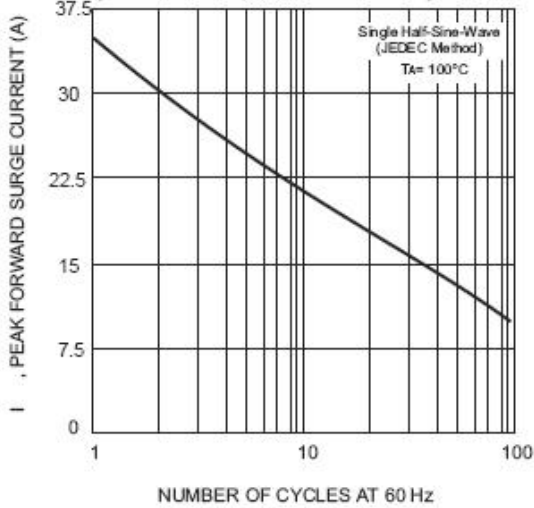
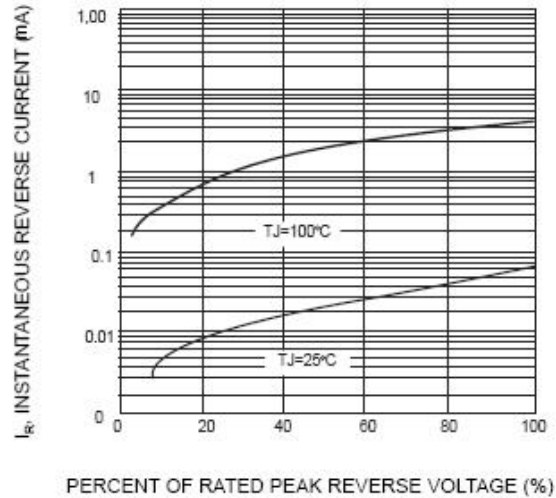
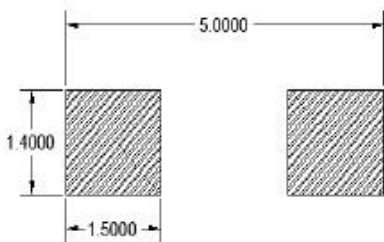


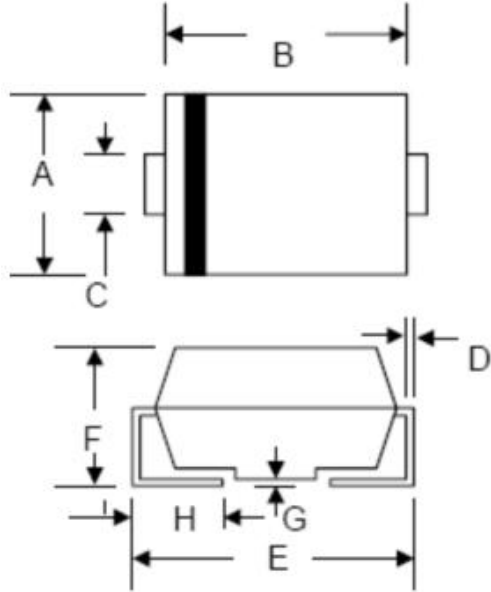
Fig. 4 Typical Reverse Characteristics (per element)



SMA PAD LAYOUT (MM)



**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
SS12 - SS120	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**

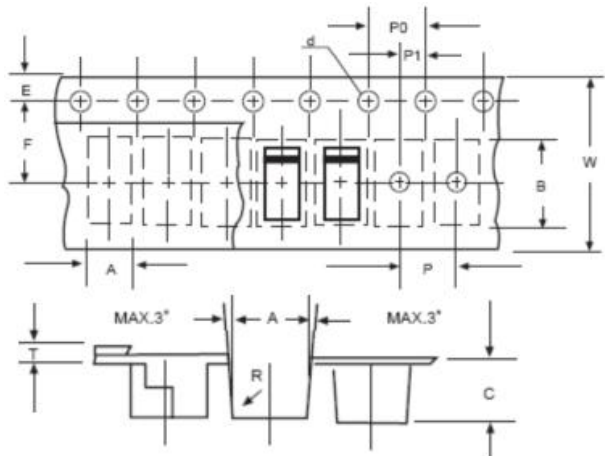


Where XXXXX is YYWWL

SS12 = Part Name  
YY = Year  
WW = Week  
L = Lot Number

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

**Carrier Tape 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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