



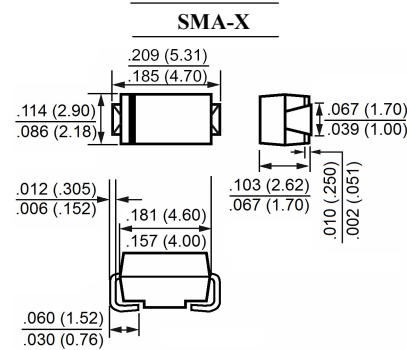
# SS12W THRU SS120W

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**REVERSE VOLTAGE:** 20 to 200 VOLTS  
**FORWARD CURRENT:** 1.0 AMPERE

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Suffix "H" indicates Halogen-free parts, ex. SS12WH



Dimensions in inchs and (millimeters)

### MECHANICAL DATA

Case : Molded plastic, SMA-X  
 Terminals : Axial leads, solderable per MIL-STD-750, method 2026 guaranteed  
 Polarity : Color band denotes cathode end

### 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	SS12W	SS13W	SS14W	SS15W	SS16W	SS18W	SS110W	SS115W	SS120W	Units	
		SS12	SS13	SS14	SS15	SS16	SS18	SS110	SS115	SS120		
Marking Code												
Maximum Recerrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	71	105	140	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at T <sub>L</sub> (See Fig. 1)	I <sub>(AV)</sub>	1.0									Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30.0									Amp	
Maximum Forward Voltage at 1.0A (Note 1)	V <sub>F</sub>	0.55			0.70		0.85		0.95		Volts	
Maximum Reverse Current at T <sub>A</sub> =25°C at Rated DC Blocking Voltage T <sub>A</sub> =100°C	I <sub>R</sub>	0.5					0.1					mAmp
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	88.0									°C/W	
	R <sub>θJL</sub>	28.0										
Operating Junction Temperature Range	T <sub>J</sub>	-65 to +125				-65 to +150						°C
Storage Temperature Range	T <sub>stg</sub>	-65 to +150										°C

**NOTES:**

- 1- Pulse test: 300µs pulse width, 1% duty cycle
- 2- P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas



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### RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

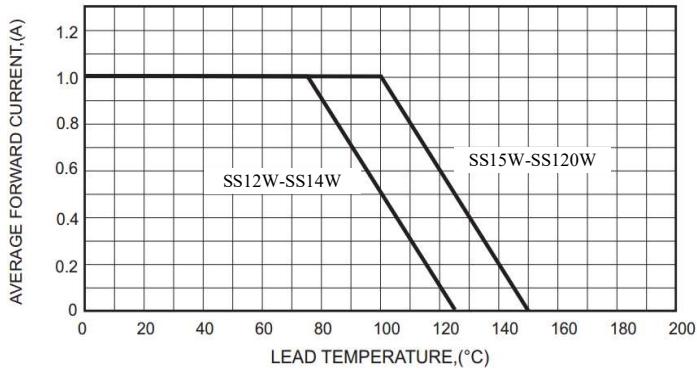


FIG.2-TYPICAL FORWARD CHARACTERISTICS

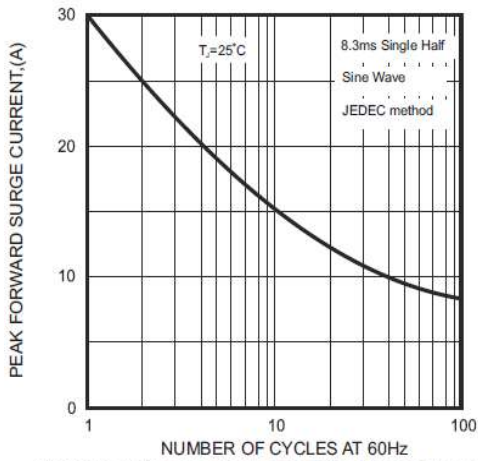
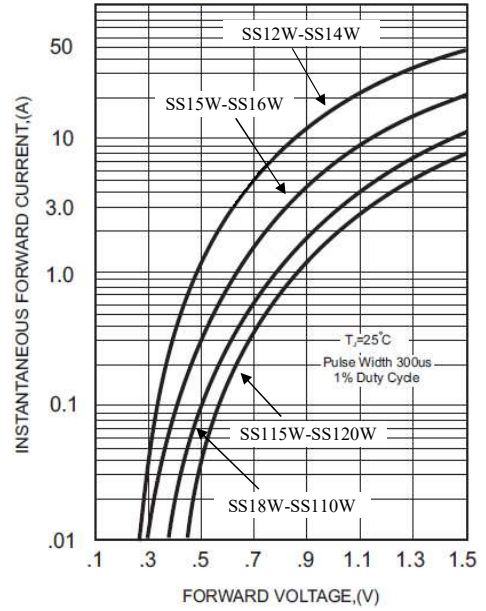


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

CHARACTERISTICS

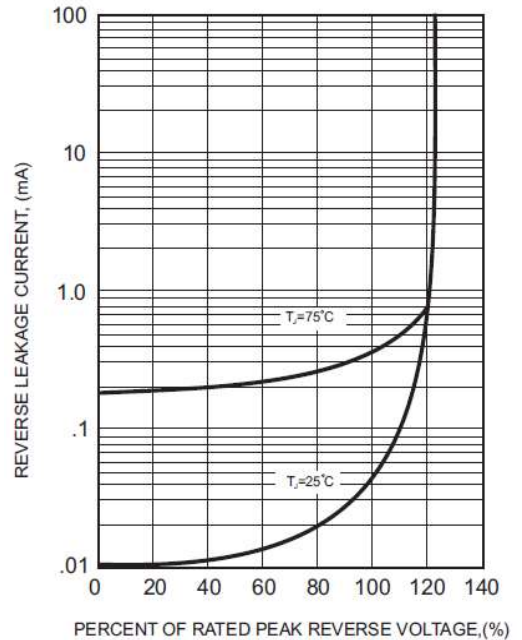


FIG.4- TYPICAL REVERSE