

# SS12W THRU SS120W

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



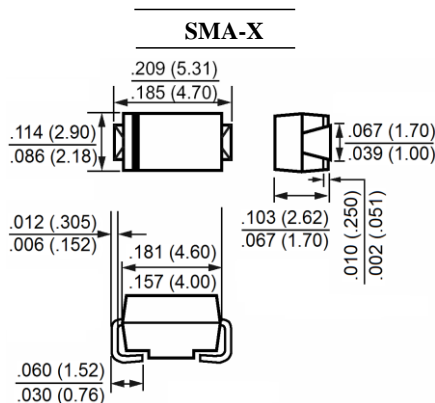
康比電子  
HORNBY ELECTRONIC

**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 inches 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	
Maximum Recerrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	71	105	140	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at $T_L$ (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									Amp	
Maximum Forward Voltage at 1.0A (Note 1)	$V_F$	0.55			0.70		0.85		0.95		Volts	
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	0.5					0.1					mAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	88.0									°C/W	
	$R_{\theta JL}$	28.0										
Operating Junction Temperature Range	$T_J$	-65 to +125									°C	
Storage Temperature Range	$T_{stg}$	-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

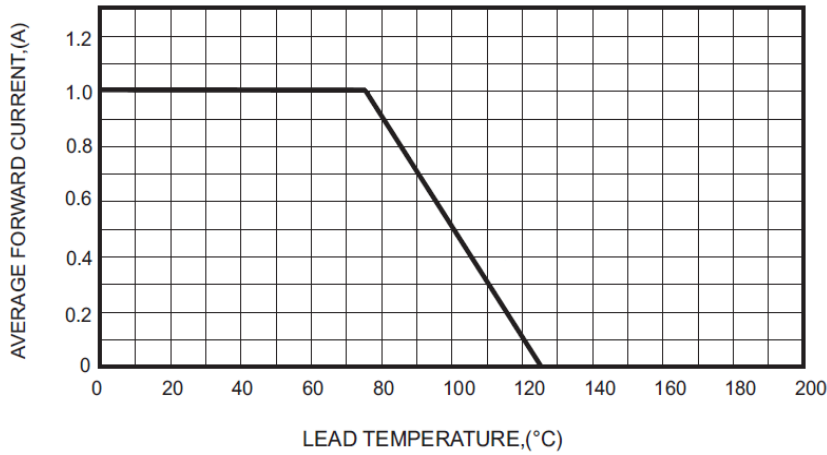


FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

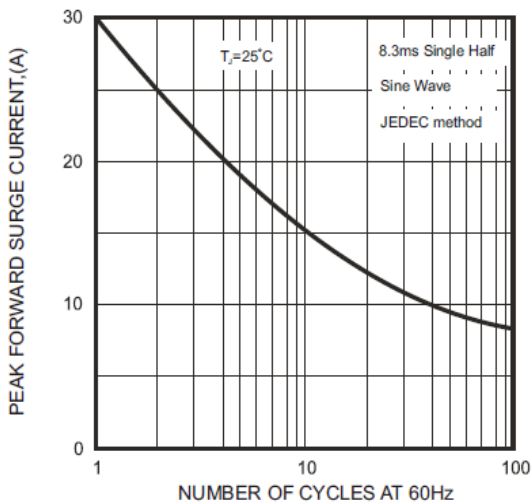


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

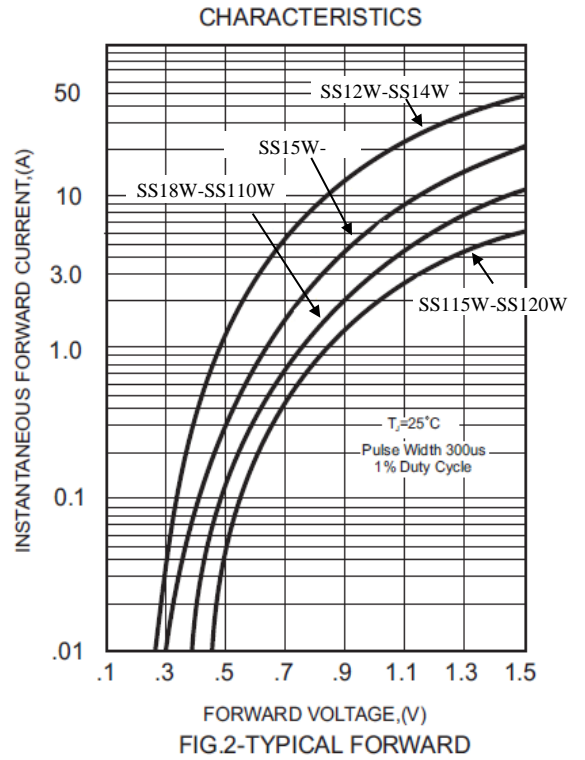


FIG.2-TYPICAL FORWARD CHARACTERISTICS

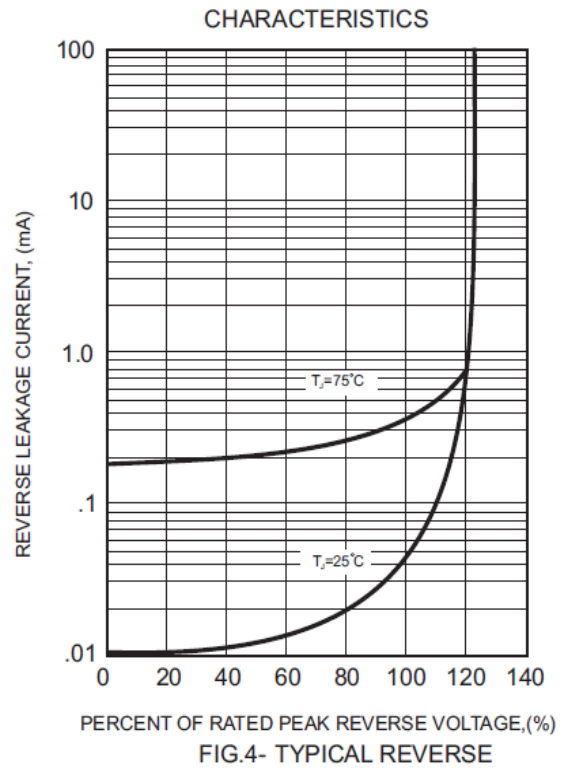


FIG.4-TYPICAL REVERSE CHARACTERISTICS