



# SS12W~S100W

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 100 Volts **CURRENT** 1.0 Ampere

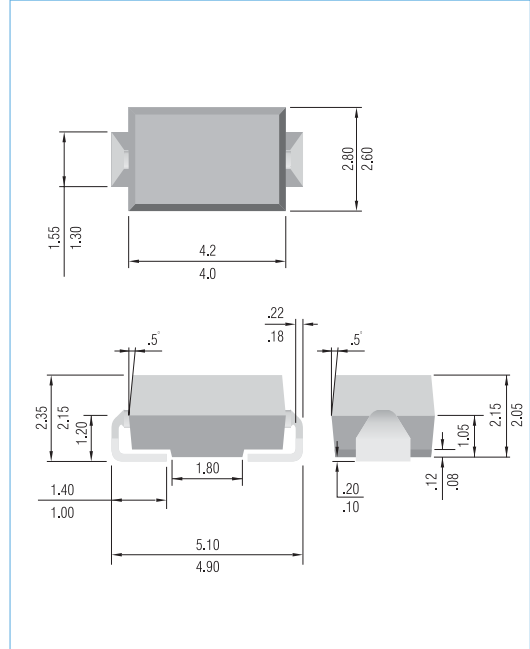
**SMA-W** Unit: mm

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- High current capacity, low  $V_F$
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

- Case: SMA-W molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750D, Method 1036.3
- Polarity: Color band denotes positive end (cathode)
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.002 ounce, 0.064 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Resistive or inductive load.

PARAMETER	SYMBOL	SS12W	SS13W	SS14W	SS15W	SS16W	SS18W	S100W	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum Average Forward Current .375" (9.5mm) lead length at $T_L=75^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1.0A ( Note 1)	$V_F$	0.5		0.7		0.85		V	
Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$	0.5			50		0.5		20 mA
Maximum Thermal Resistance ( Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	28 88							$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

**NOTES:**

- A. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.
- B. Mounted on P.C. Board with  $5.0\text{mm}^2$  (.013mm thick) copper pad areas.



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## RATING AND CHARACTERISTIC CURVES

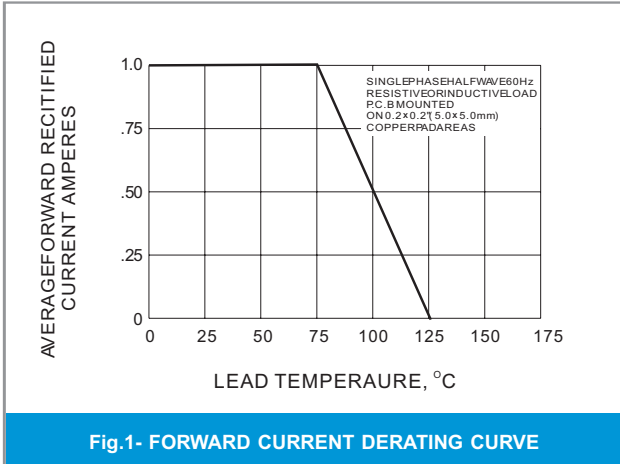


Fig.1- FORWARD CURRENT DERATING CURVE

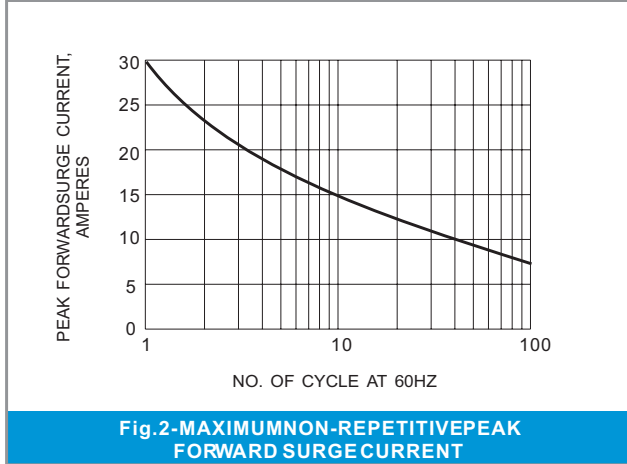


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

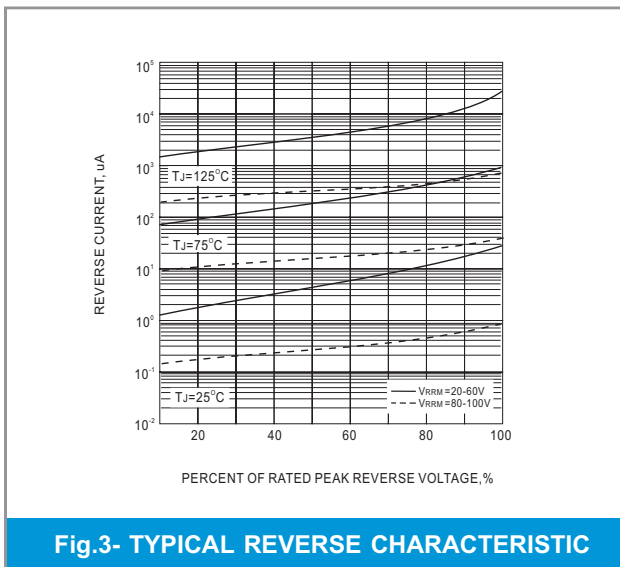


Fig.3- TYPICAL REVERSE CHARACTERISTIC

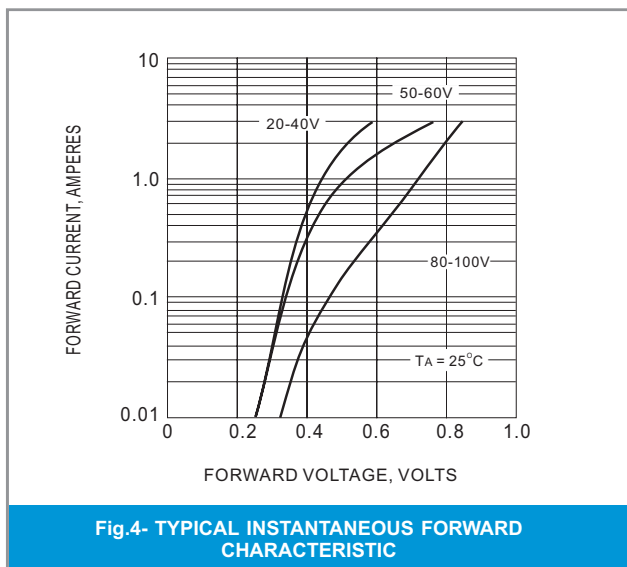


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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