



# SS12W SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

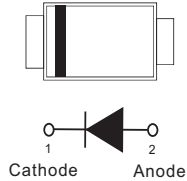
**VOLTAGE** 20 to 100 Volt **CURRENT** 1 Ampere

### FEATURES

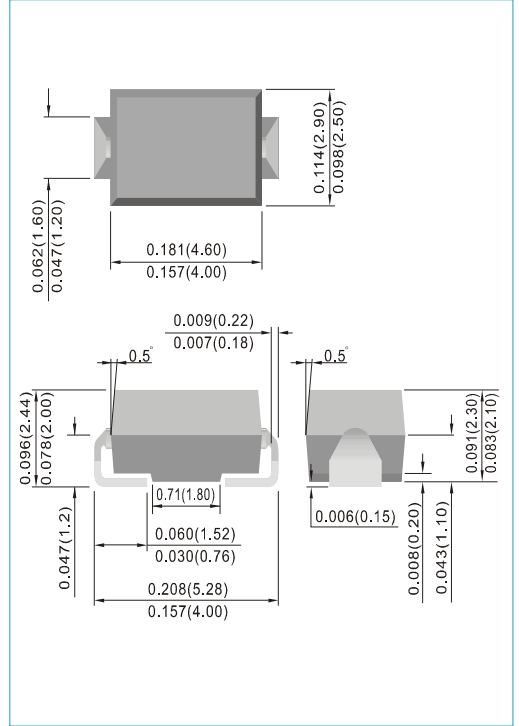
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low power loss, high efficiency
- High surge capacity
- High current capacity, low  $V_F$
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: JEDEC SMA(W) molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0024 ounces, 0.0679 grams



### SMA(W) Unit : inch(mm)



## 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	SS19W	S100W	UNITS	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V	
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	V	
Maximum Average Forward Current at $T_L=75^\circ\text{C}$	$I_{F(AV)}$	1								A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30								A	
Maximum Forward Voltage at 1A (Note 1)	$V_F$	0.5		0.7		0.85				V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$			0.5 50		0.5 20				mA	
Typical 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		-55 to +150						$^\circ\text{C}$	
Storage Temperature Range	$T_{STG}$	-55 to +150									$^\circ\text{C}$

**NOTES :**

1. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.
2. Mounted on P.C. Board with  $5\text{mm}^2$  (0.013mm thick) copper pad areas.



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## RATING AND CHARACTERISTIC CURVES

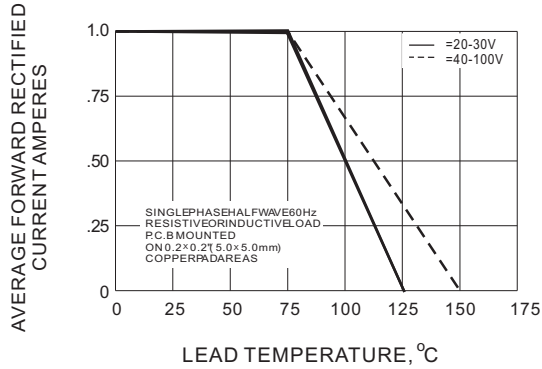


Fig.1 FORWARD CURRENT DERATING CURVE

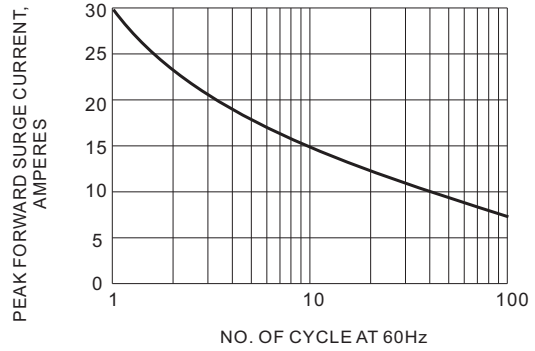


Fig.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

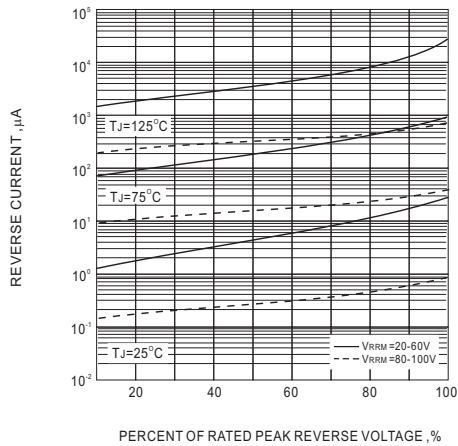


Fig.3 TYPICAL REVERSE CHARACTERISTIC

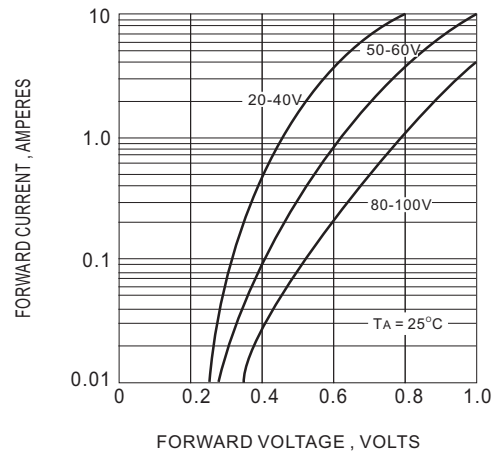


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

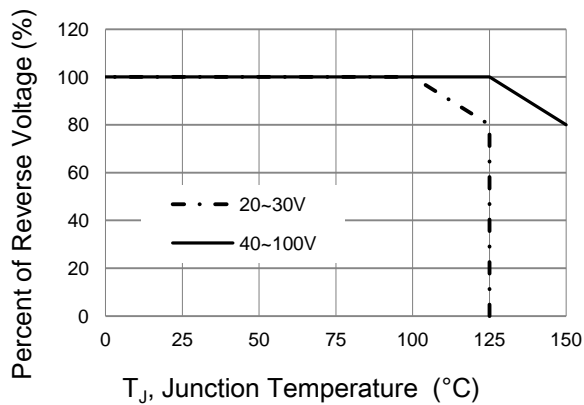


Fig.5 Operating Temperature Derating Curve

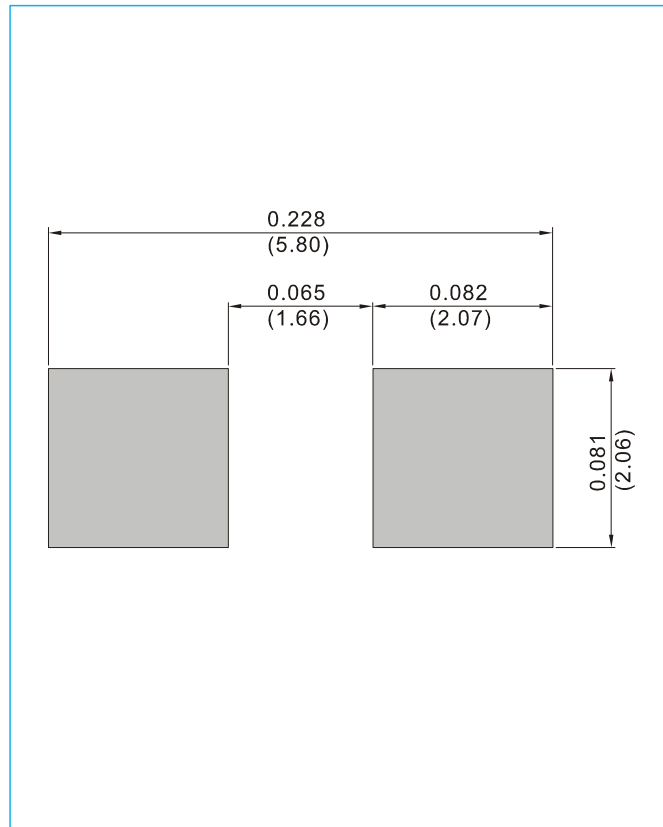


## SS12W SERIES

### MOUNTING PAD LAYOUT

**SMA(W)**

Unit : inch(mm)



### ORDER INFORMATION

- Packing information
  - T/R - 7.5K per 13" plastic Reel
  - T/R - 1.8K per 7" plastic Reel



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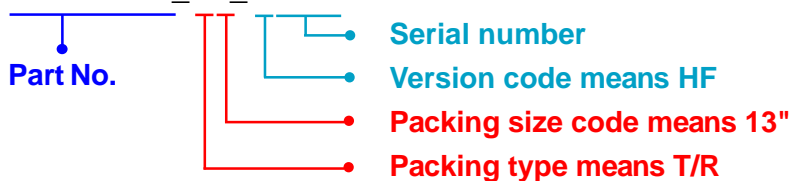
### Part No\_packing code\_Version

SS12W\_R1\_00001

SS12W\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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