



# SS12~S100

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

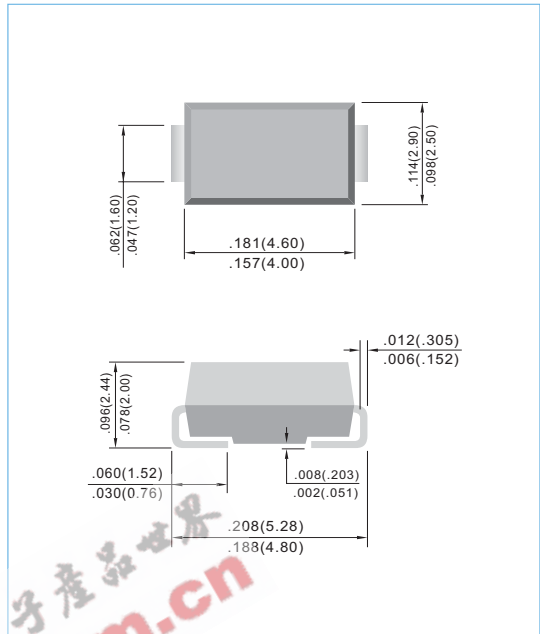
**SMA/DO-214AC** Unit: inch (mm)

### 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.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- 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	SS12	SS13	SS14	SS15	SS16	SS18	S100	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				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					-55 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$	

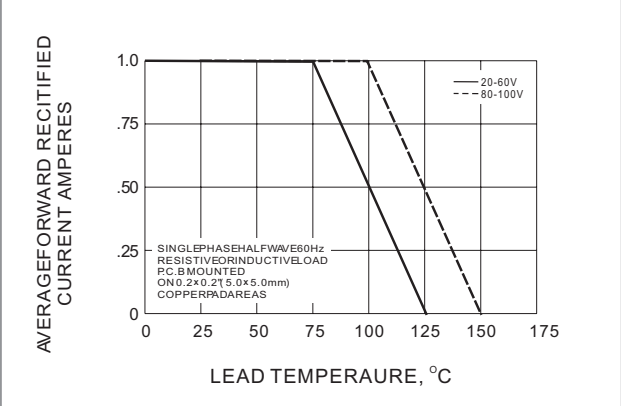
**NOTES:**

- A.Pulse Test with PW =300μsec, 1% Duty Cycle.
- B.Mounted on P.C. Board with 5.0mm<sup>2</sup> (.013mm thick) copper pad areas.

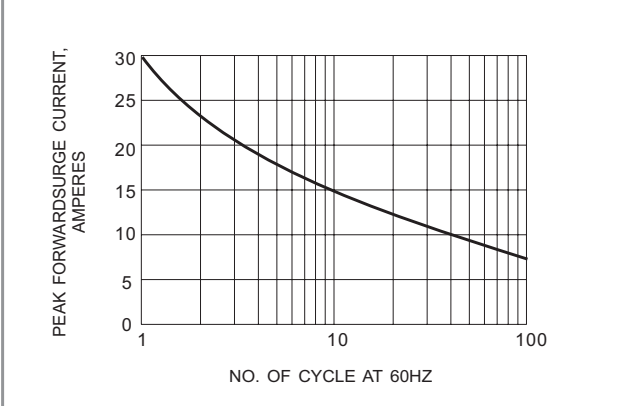


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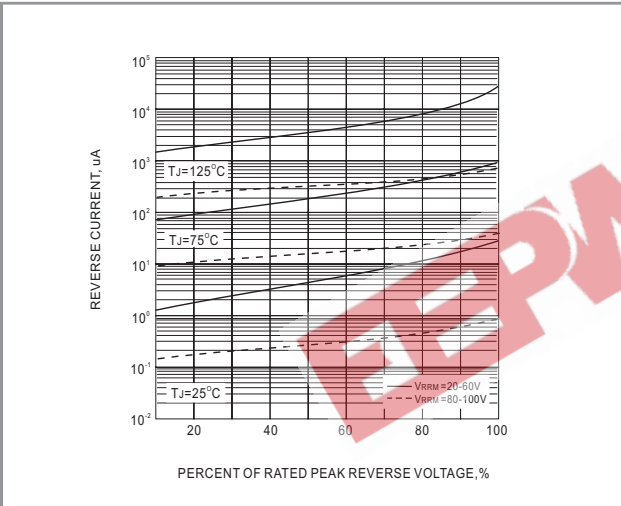
## RATING AND CHARACTERISTIC CURVES



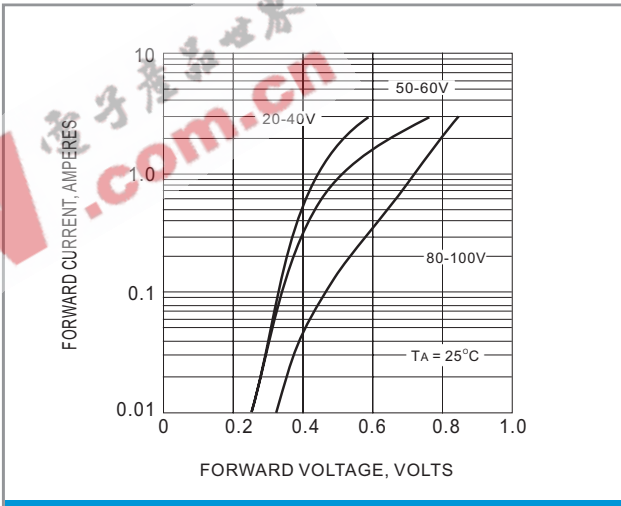
**Fig.1- FORWARD CURRENT DERATING CURVE**



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



**Fig.3- TYPICAL REVERSE CHARACTERISTIC**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**

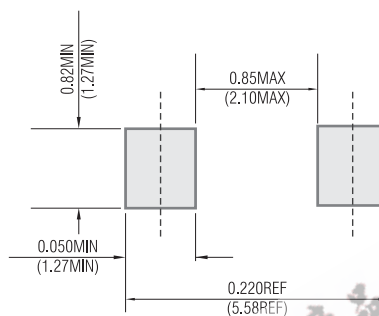


## SS12~S100

### MOUNTING PAD LAYOUT

SMA/DO-214AC

Unit: inch ( mm )



### ORDER INFORMATION

- Packing information

T/R - 7.5K per 13" plastic Reel

T/R - 1.8Kper 7" plastic Reel

### LEGAL STATEMENT

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