



# SS12~S100

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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

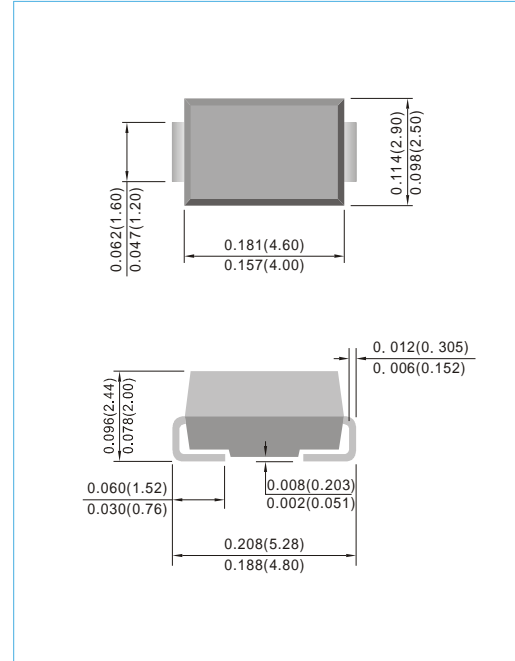
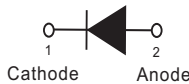
**SMA / DO-214AC** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- 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 DO-214AC 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 : 0.0023 ounces, 0.0679 grams



## 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 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 $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	0.2 6		0.1 5		0.5 2		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							$^\circ\text{C}$
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

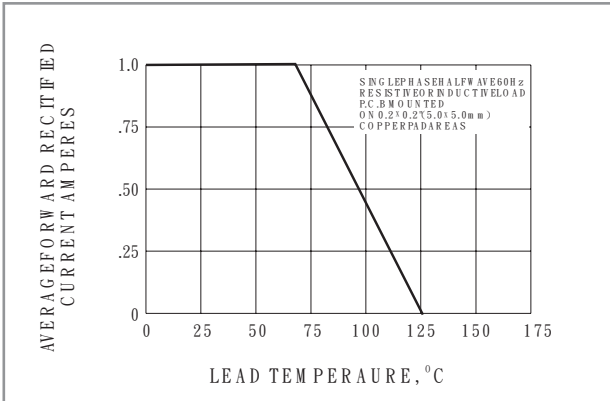


Fig. 1 FORWARD CURRENT DERATING CURVE

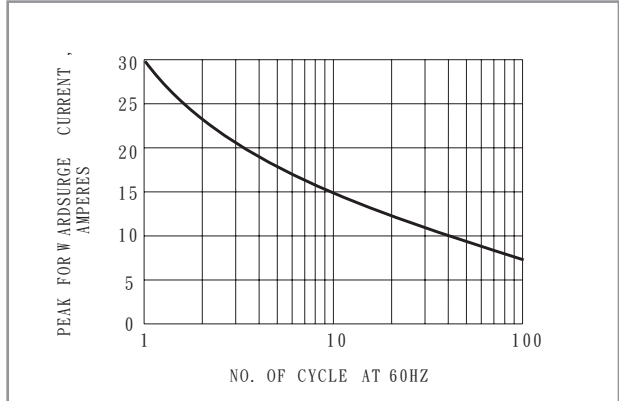


Fig. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

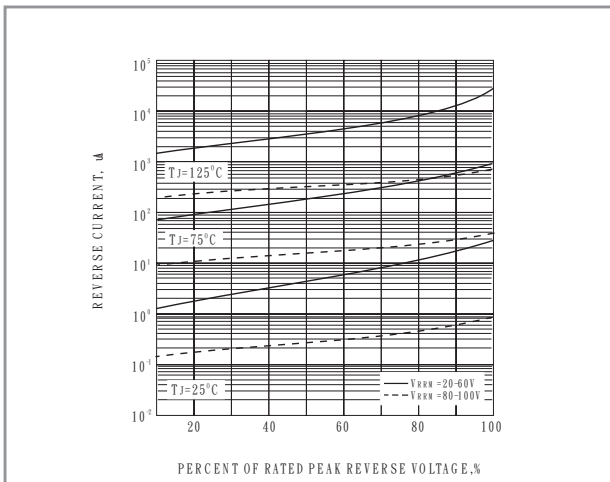


Fig. 3 TYPICAL REVERSE CHARACTERISTIC

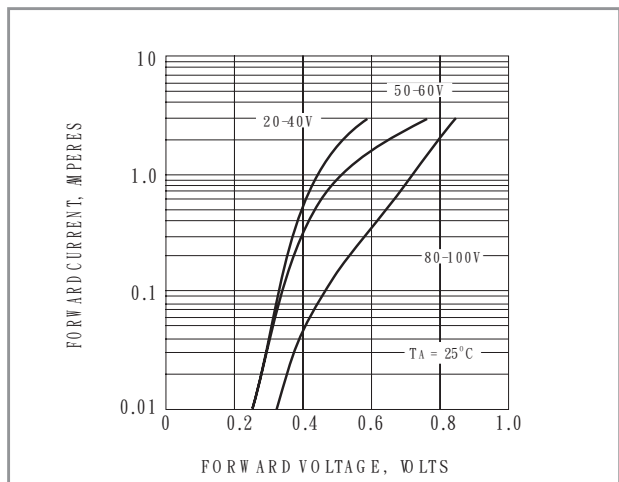


Fig. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

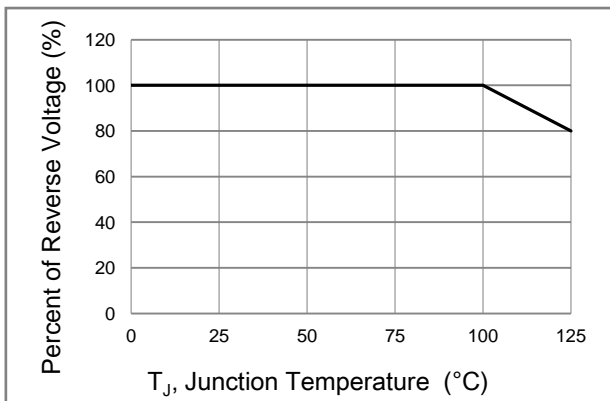
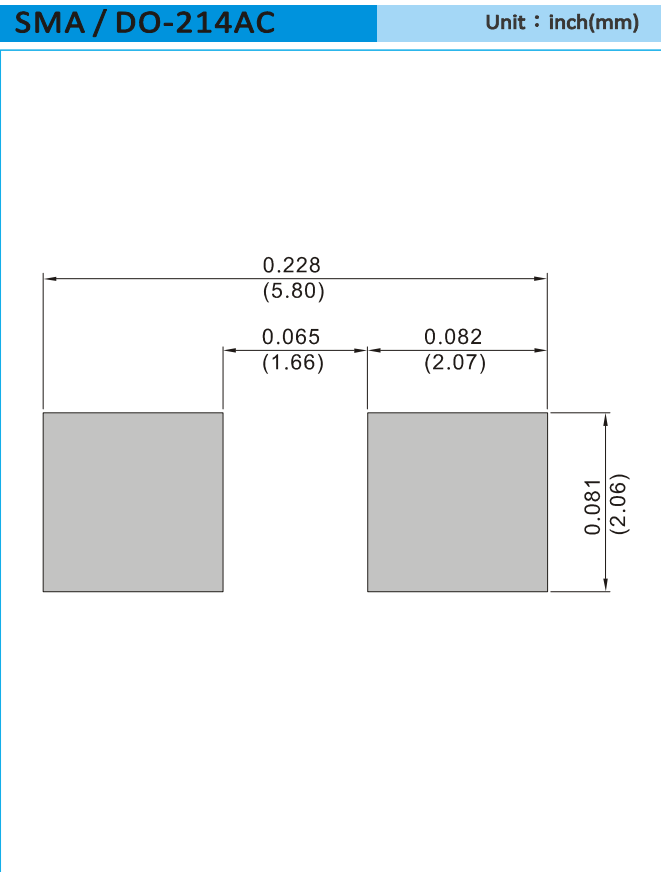


Fig. 5 Operating Temperature Derating Curve



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### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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



## SS12~S100

### Part No\_packing code\_Version

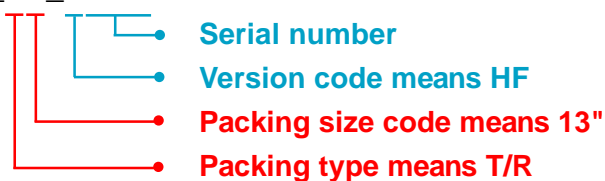
SS12\_R1\_00001

SS12\_R2\_00001

For example :

**RB500V-40** **R2** **00001**

Part No.



Packing Code XX				Version Code XXXXX		
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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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