

## SS12L SERIES

### LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

**VOLTAGE** 20 to 90 Volt **CURRENT** 1.0 Ampere

**SMA / DO-214AC**

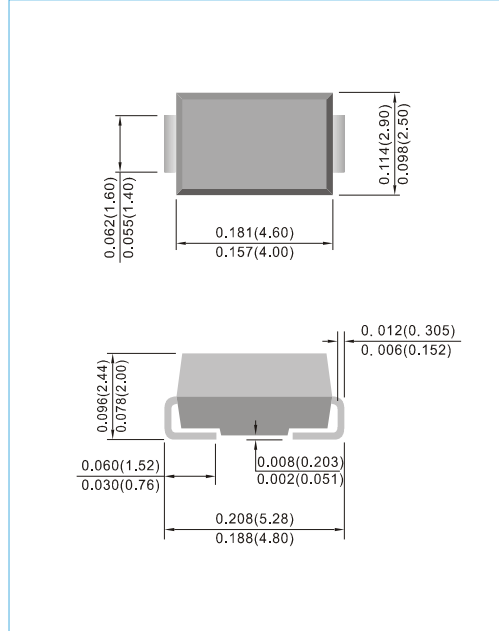
Unit : inch(mm)

#### 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
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### 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( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	SS12L	SS13L	SS14L	SS14AL	SS16L	SS19L	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	45	60	90	V
Maximum rms voltage	$V_{RMS}$	14	21	28	31.5	42	64	V
Maximum dc blocking voltage	$V_R$	20	30	40	45	60	90	V
Maximum average forward rectified current	$I_{F(AV)}$	1						A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30					40	A
Maximum thermal resistance	$R_{\theta JA}$ $R_{\theta JL}$	120 40						$^{\circ}\text{C/W}$
Operating junction temperature range	$T_J$	-55 to + 125					-55 to +150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150					-55 to +150	$^{\circ}\text{C}$

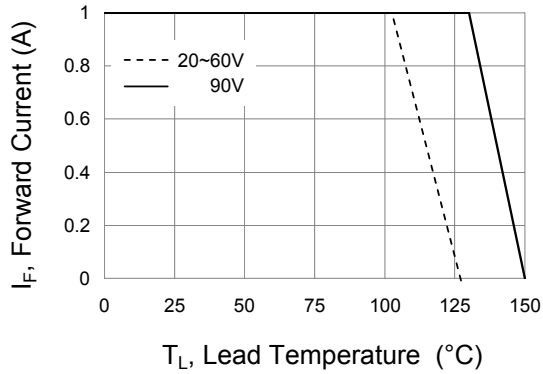
### ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	SS12L	SS13L	SS14L	SS14AL	SS16L	SS19L	UNIT
Maximum instantaneous forward voltage (Notes 1)	$V_F$	$I_F=1.0\text{A}$	0.42			0.45	0.50	0.68	V
Maximum reverse current at rated peak reverse voltage	$I_R$	-	200		100			80	$\mu\text{A}$

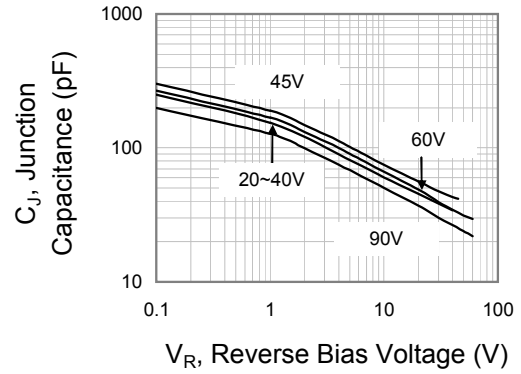
#### NOTES:

1. Pulse test : 300 $\mu\text{s}$  pulse width, 1% duty cycle.

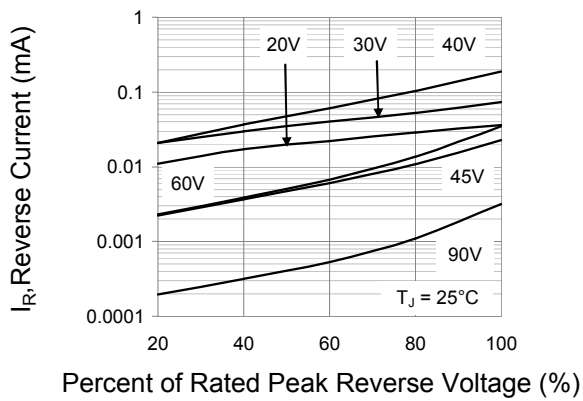
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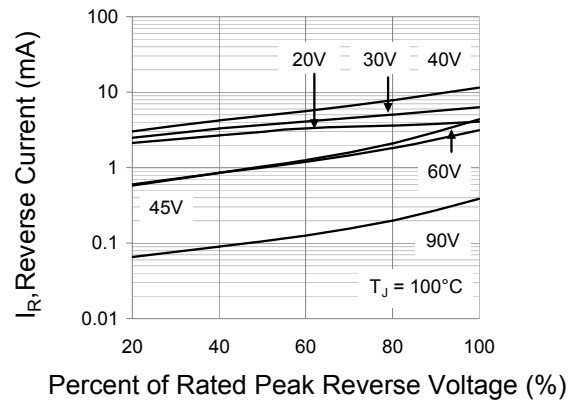
**Fig.1 Forward Current Derating Curve**



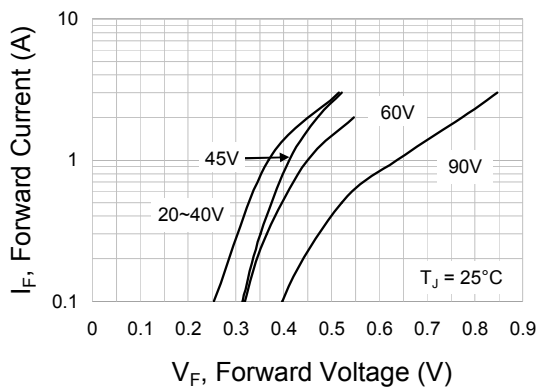
**Fig.2 Typical Junction Capacitance**



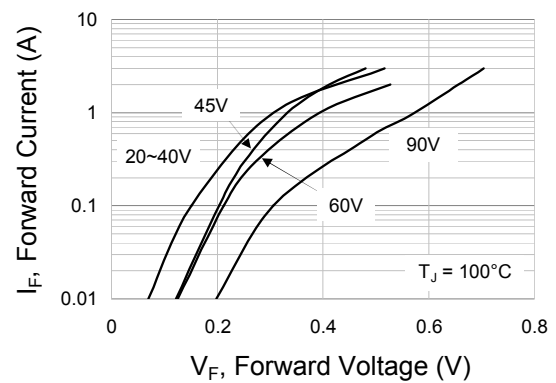
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**

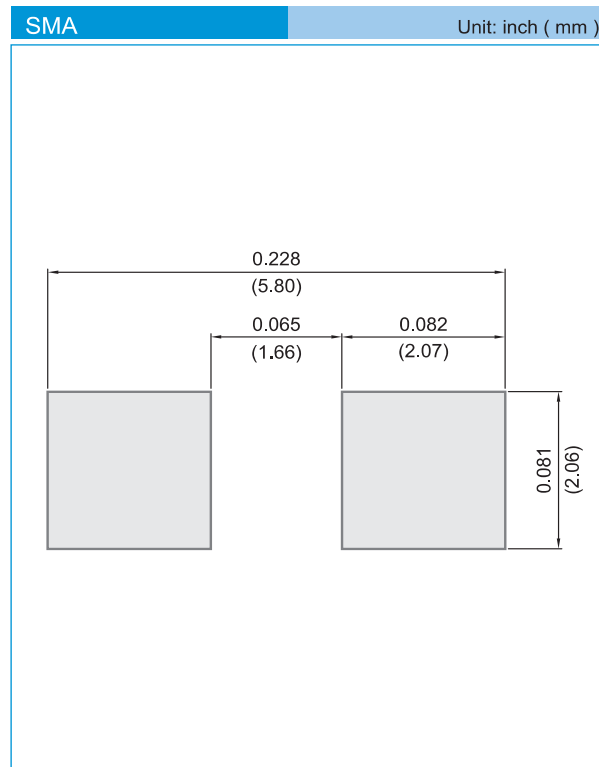


**Fig.6 Typical Forward Characteristics**



## SS12L SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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

## SS12L SERIES

### Part No\_packing code\_Version

SS12L\_R1\_00001

SS12L\_R2\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code <b>XX</b>				Version Code <b>XXXXXX</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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