



## SS12L SERIES

### LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

**VOLTAGE** 20 to 40 Volts **CURRENT** 1.0 Amperes

**SMA / DO-214AC**

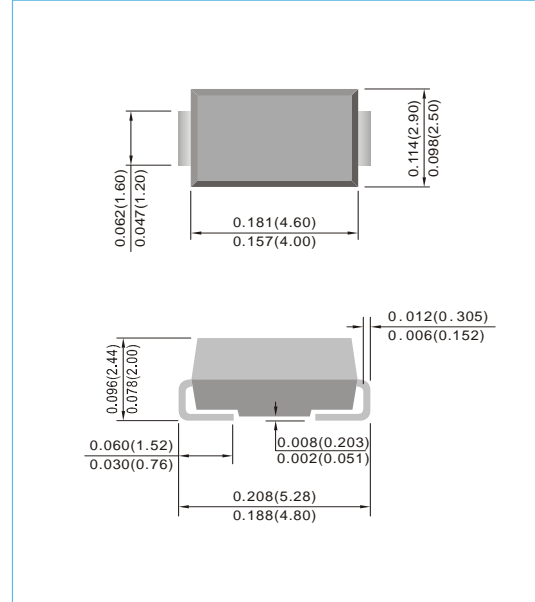
Unit : inch(mm)

#### 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 cathode end
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounce, 0.0679 gram



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

PARAMETER	SYMBOL	SS12L	SS13L	SS14L	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
Maximum rms voltage	$V_{RMS}$	14	21	28	V
Maximum dc blocking voltage	$V_{DC}$	20	30	40	V
Maximum average forward rectified current at $T_L=110^\circ\text{C}$	$I_{F(AV)}$	1			A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30			A
Maximum Thermal Resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	120 28			$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to + 125			$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150			$^\circ\text{C}$

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

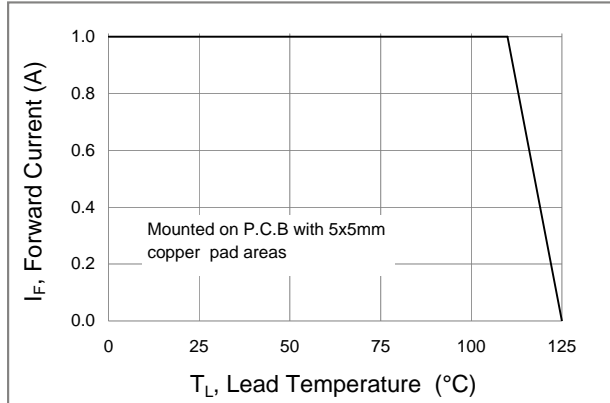
PARAMETER	SYMBOL	TEST CONDITIONS	SS12L	SS13L	SS14L	UNIT
Maximum instantaneous forward voltage (Note 2)	$V_F$	$I_F=0.1\text{A}$ $T_J=25^\circ\text{C}$	0.31			V
		$I_F=1.0\text{A}$ $T_J=25^\circ\text{C}$	0.42			
Maximum reverse current at rated peak reverse voltage (Note 2)	$I_R$	$T_J=25^\circ\text{C}$	0.2	0.5		mA
		$T_J=100^\circ\text{C}$	10	25		

#### NOTES:

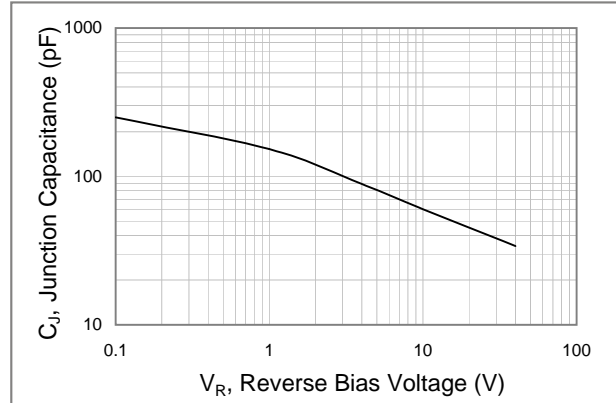
1. P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0 mm) copper pad areas.
2. Pulse test : 300 $\mu\text{s}$  pulse width, 1% duty cycle.



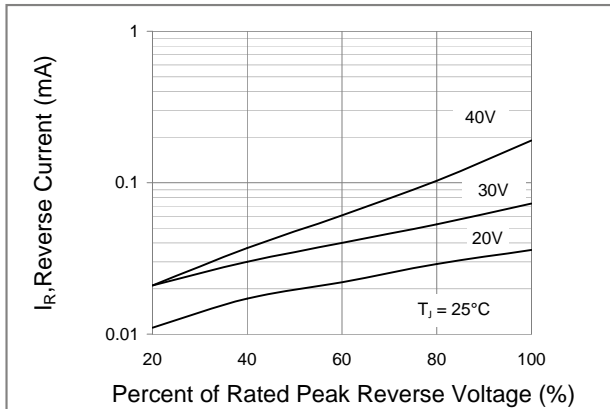
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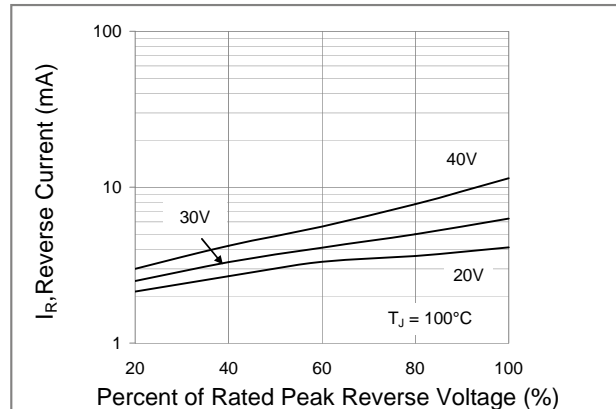
**Fig.1 Forward Current Derating Curve**



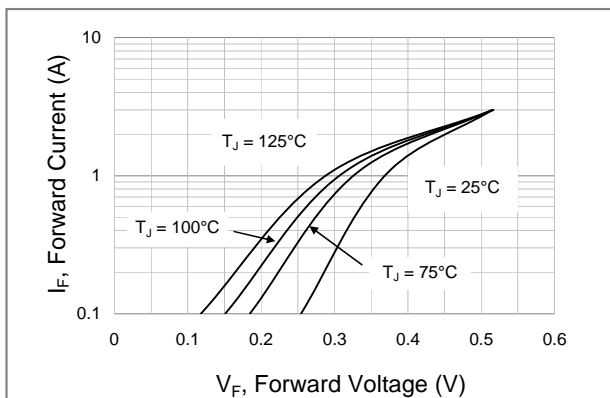
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**

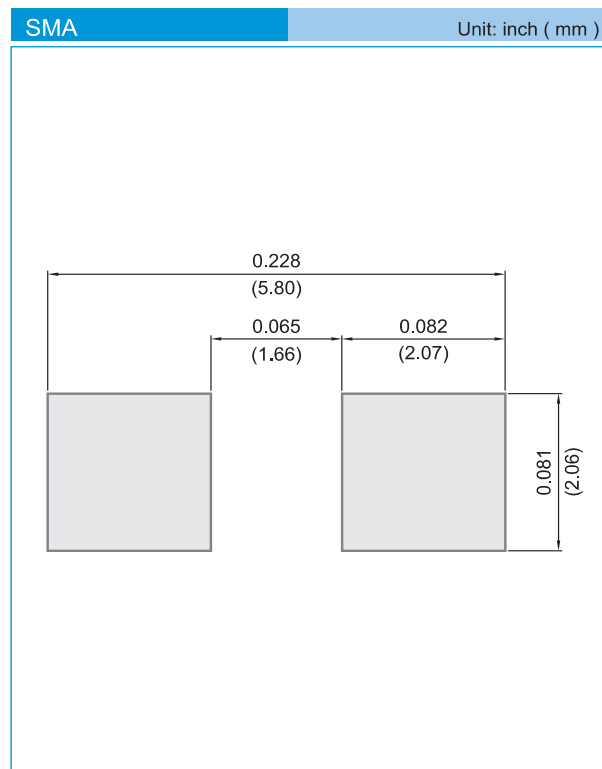


**Fig.5 Typical Forward Characteristics**



## SS12L SERIES

### MOUNTING PAD LAYOUT



### 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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