

## SS12L SERIES

### LOW VF SURFACE MOUNT SCHOTTKY RECTIFIER

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

**SMA / DO-214AC**

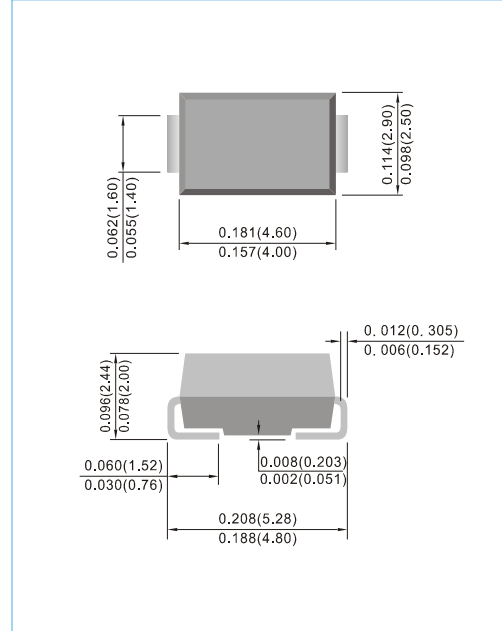
Unit : inch(mm)

#### 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						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						$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150						$^{\circ}\text{C}$

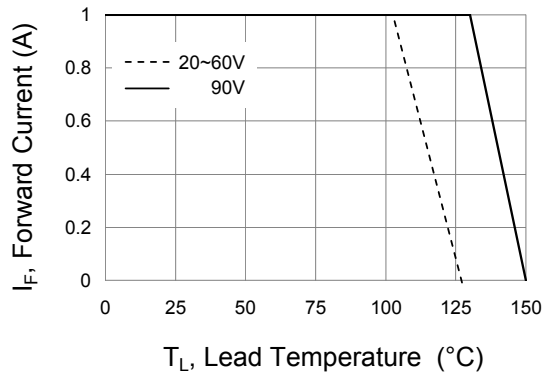
### ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	SS12L	SS13L	SS14L	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	$\mu\text{A}$

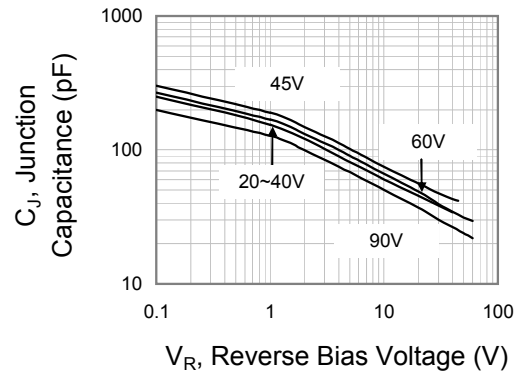
#### NOTES:

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

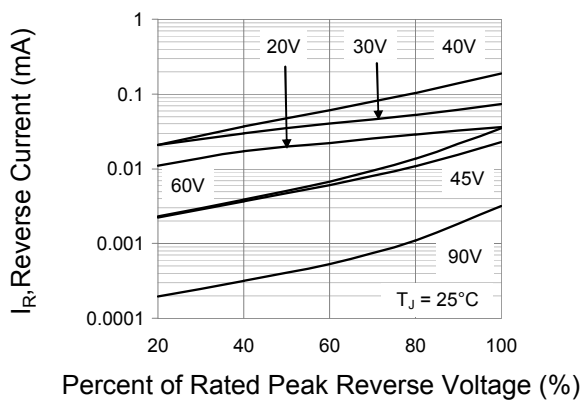
## SS12L SERIES



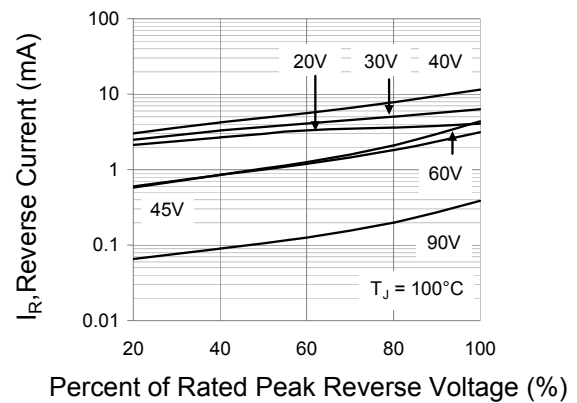
**Fig.1 Forward Current Derating Curve**



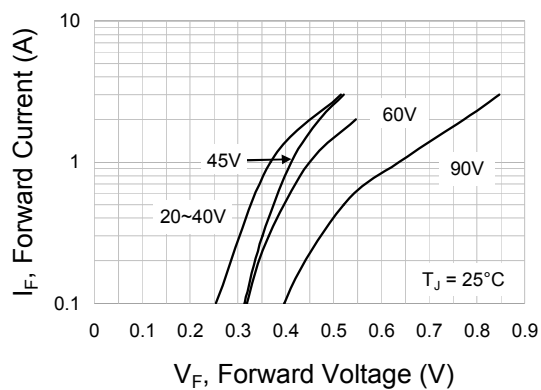
**Fig.2 Typical Junction Capacitance**



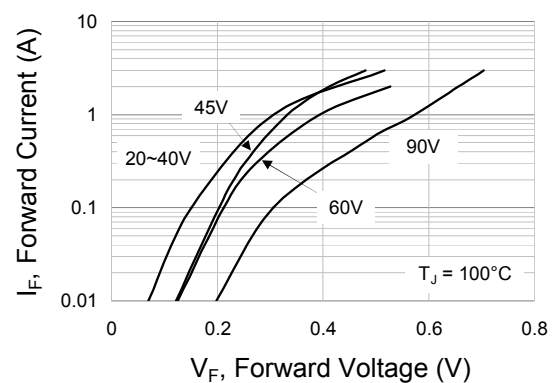
**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Reverse Characteristics**



**Fig.5 Typical Forward Characteristics**



**Fig.6 Typical Forward Characteristics**

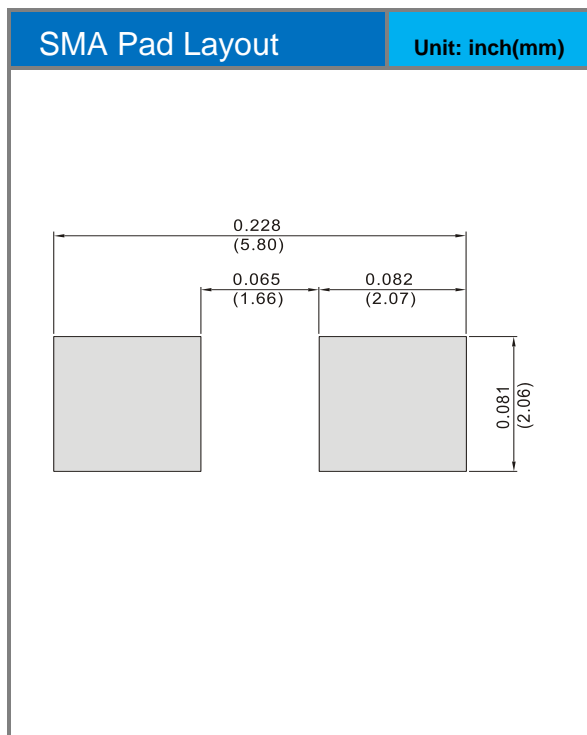
## SS12L SERIES

### Product and Packing Information

Part No.	Package Type	Packing Type	Marking
SS12L	SMA	1.8K pcs / 7" reel	SS12L
SS12L	SMA	7.5K pcs / 13" reel	SS12L
SS13L	SMA	1.8K pcs / 7" reel	SS13L
SS13L	SMA	7.5K pcs / 13" reel	SS13L
SS14L	SMA	1.8K pcs / 7" reel	SS14L
SS14L	SMA	7.5K pcs / 13" reel	SS14L
SS14AL	SMA	1.8K pcs / 7" reel	SS14AL
SS14AL	SMA	7.5K pcs / 13" reel	SS14AL
SS16L	SMA	1.8K pcs / 7" reel	SS16L
SS16L	SMA	7.5K pcs / 13" reel	SS16L
SS19L	SMA	1.8K pcs / 7" reel	SS19L
SS19L	SMA	7.5K pcs / 13" reel	SS19L

## SS12L SERIES

### Mounting Pad Layout



## SS12L SERIES

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