



SS12~SS16

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Voltage

20~60 V

Current

1 A

Features

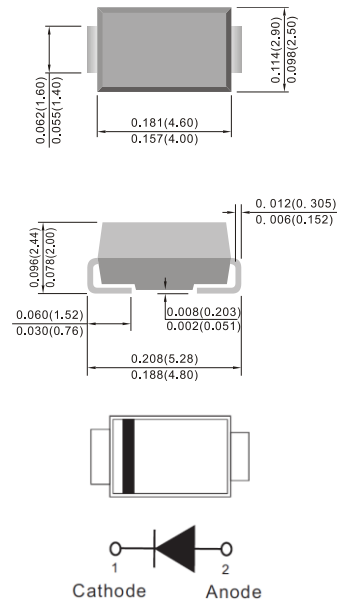
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For surface mounted applications in order to optimize board space
- Low power loss, High efficiency
- High surge capacity
- High current capacity, low V_F
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive).
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Case: SMA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging : 12mm tape (EIA-481)
- Approx. Weight: 0.0023 ounces, 0.0679 grams

SMA

Unit: inch(mm)



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

PARAMETER	SYMBOL	SS12	SS13	SS14	SS15	SS16	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	V
Maximum rms voltage	V_{RMS}	14	21	28	35	42	V
Maximum dc blocking voltage	V_R	20	30	40	50	60	V
Maximum average forward 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 forward voltage at 1A	V_F	0.5			0.7		V
Maximum dc reverse current at rated dc blocking voltage (Note 1)	$T_J=25^{\circ}\text{C}$	0.2			0.1		mA
	$T_J=100^{\circ}\text{C}$	6			5		
Typical Junction Capacitance ($V_R=4\text{V}$ $f=1\text{MHZ}$)	C_J	70			50		pF
Typical thermal resistance	(Note 2)	$R_{\theta JL}$				28	$^{\circ}\text{C/W}$
	(Note 2)	$R_{\theta JA}$				88	
	(Note 3)	$R_{\theta JA}$				150	
Operating junction temperature range	T_J	-55 to +125		-55 to +150			$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150					$^{\circ}\text{C}$

Note : 1. Short duration pulse test used to minimize self-heating effect.

2. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area

3. Mounted on a FR4 PCB, single-sided copper, mini pad.



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TYPICAL CHARACTERISTIC CURVES

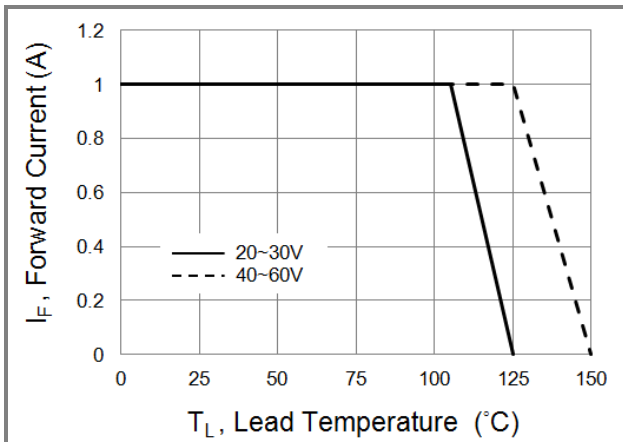


Fig.1 Forward Current Derating Curve

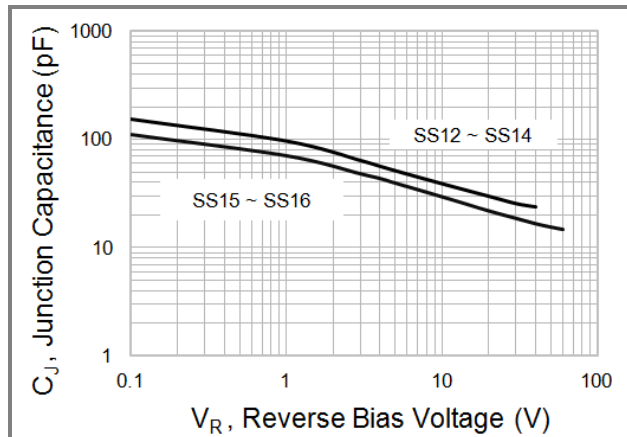


Fig.2 Typical Junction Capacitance

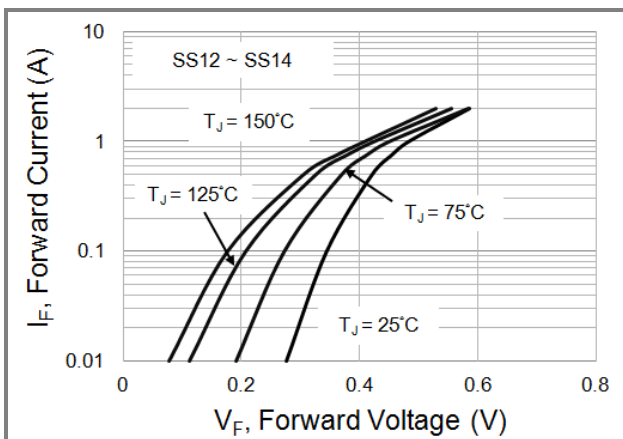


Fig.3 Typical Forward Characteristics

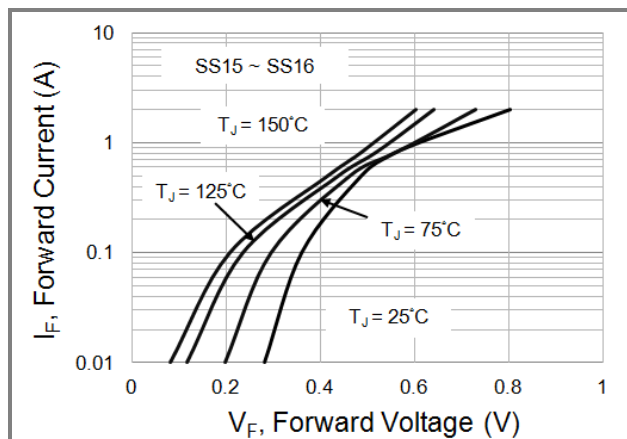


Fig.4 Typical Forward Characteristics

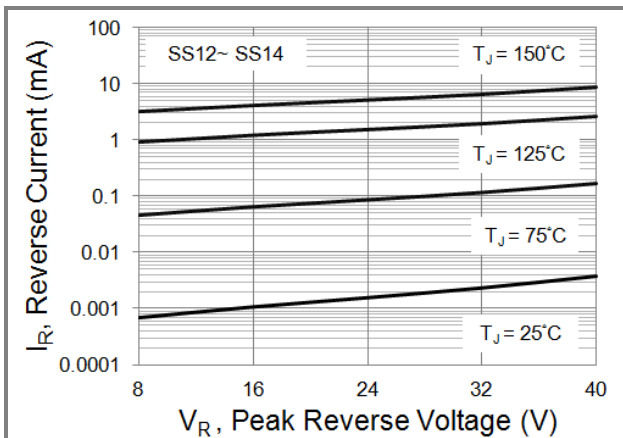


Fig.5 Typical Reverse Characteristics

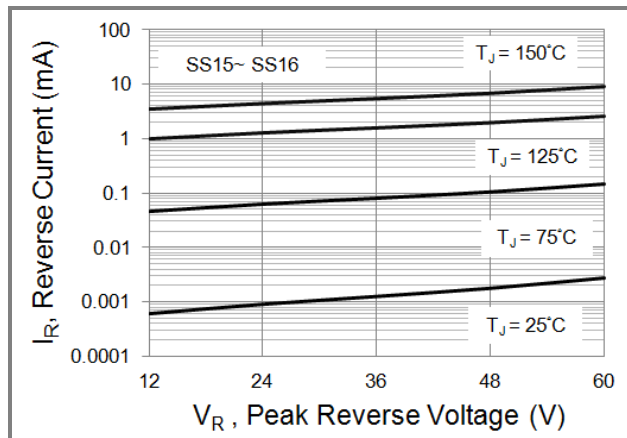
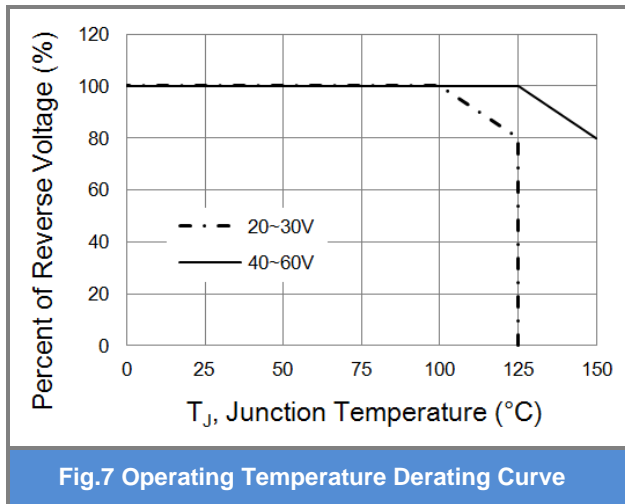


Fig.6 Typical Reverse Characteristics



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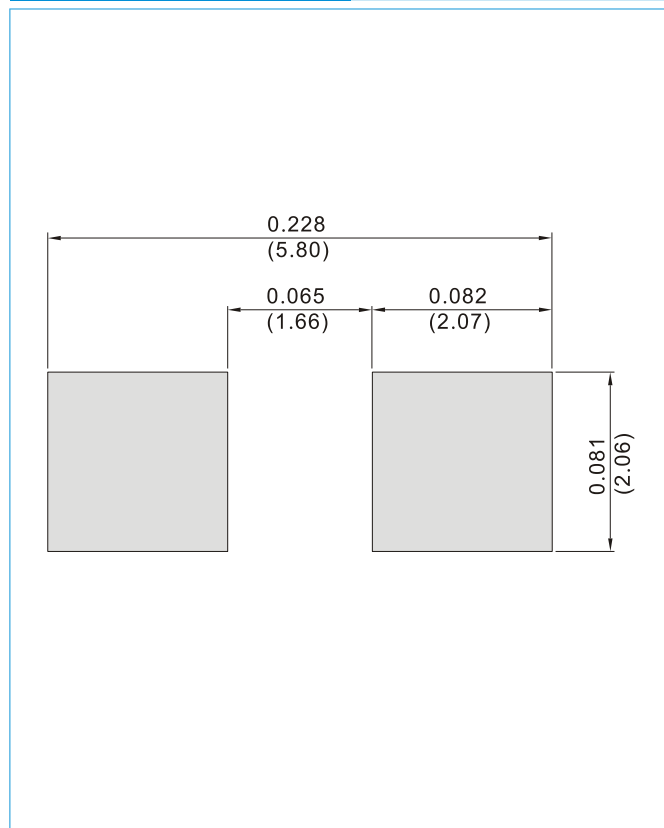
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Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SS12_R1_00001	SMA	1,800pcs / 7" reel	SS12	Halogen free
SS12_R2_00001	SMA	7,500pcs / 13" reel	SS12	Halogen free

Mounting Pad Layout

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





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