

SS12~SS16

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Voltage

20~60 V

Current

1 A

Features

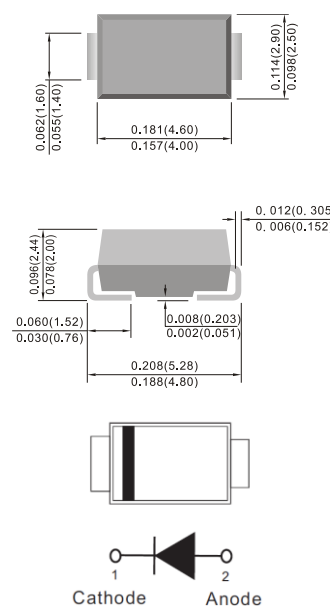
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For surface mounted applications in order to optimize board space
- Low power loss, High efficiency
- High surge capacity
- High current capacity, low V_F
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU 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 °C	I _R	0.2			0.1		mA
	T _J =100 °C		6			5		
Typical Junction Capacitance (V _R =4V f=1MHZ)		C _J	70			50		pF
Typical thermal resistance	(Note 2)	R _{θJL}	28					°C/W
	(Note 2)	R _{θJA}	88					
	(Note 3)	R _{θJA}	150					
Operating junction temperature range		T _J	-55 to +125		-55 to +150			°C
Storage temperature range		T _{STG}	-55 to +150					°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

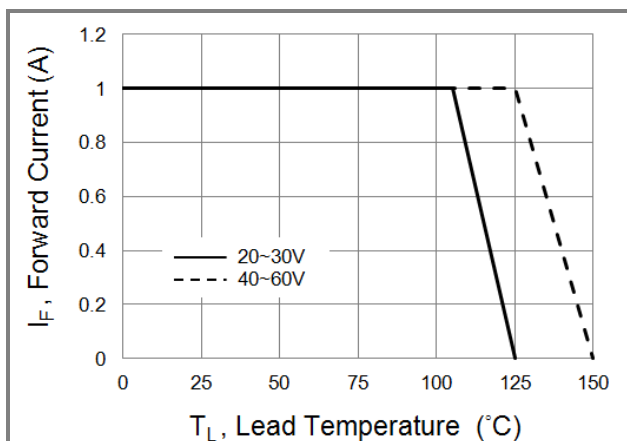


Fig.1 Forward Current Derating Curve

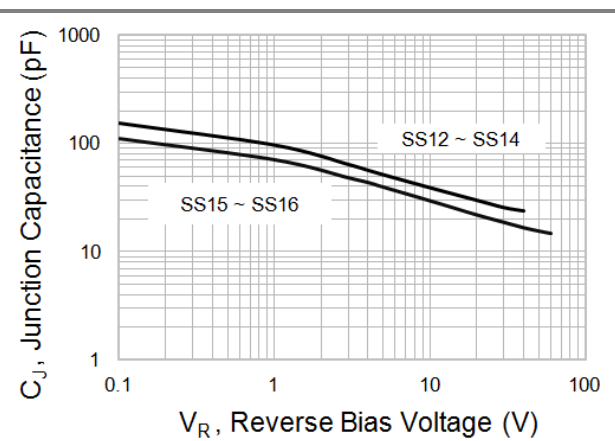


Fig.2 Typical Junction Capacitance

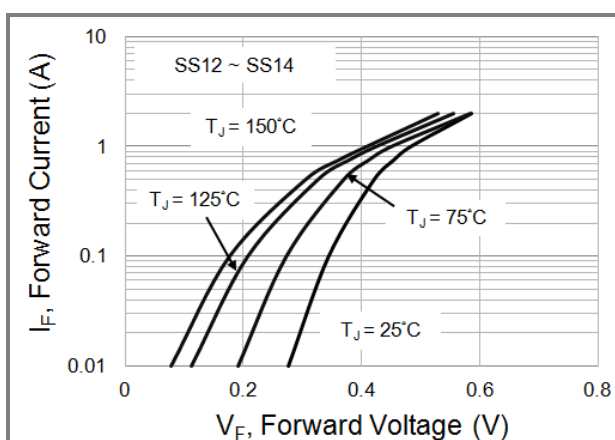


Fig.3 Typical Forward Characteristics

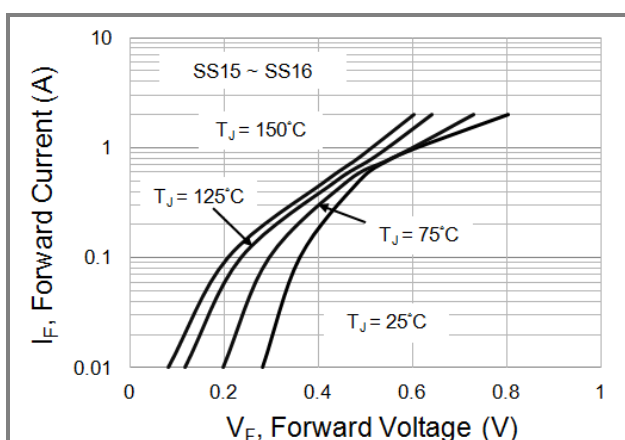


Fig.4 Typical Forward Characteristics

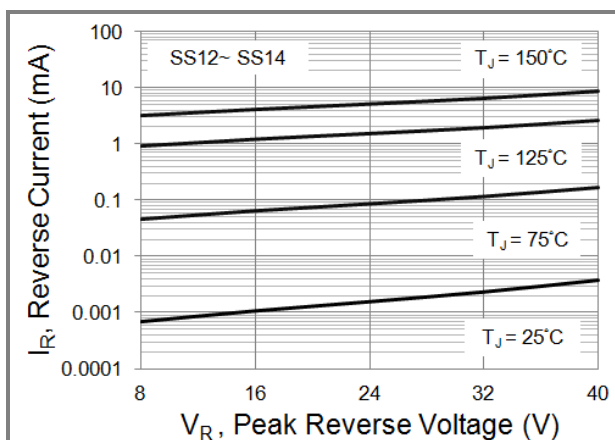


Fig.5 Typical Reverse Characteristics

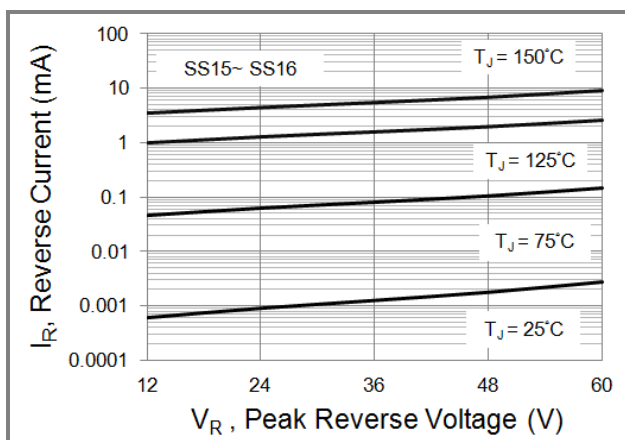


Fig.6 Typical Reverse Characteristics

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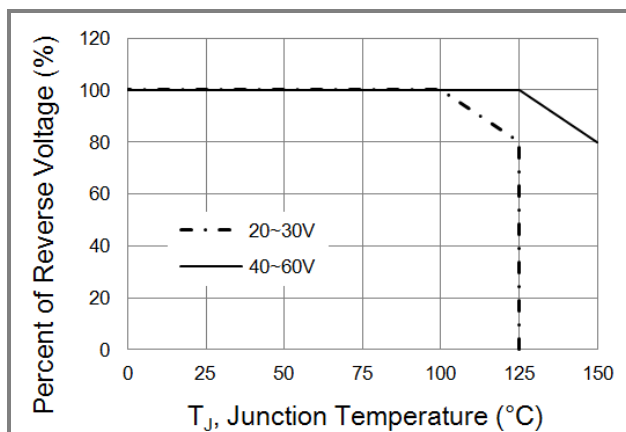


Fig.7 Operating Temperature Derating Curve

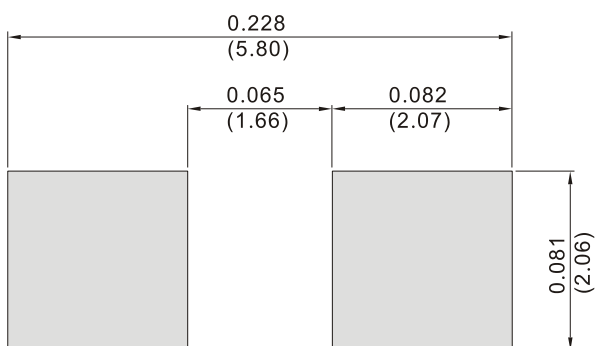
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Part No Packing Code Version

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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