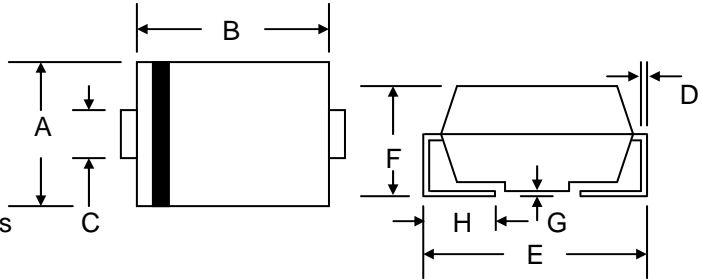


### Features

- Low Forward Voltage
- Epitaxial Construction with Oxide Passivation
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Fast Switching
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes



### Mechanical Data

- Case: SMA/DO-214AC, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.064 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

SMA/DO-214AC		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.90
D	0.152	0.305
E	4.80	5.30
F	2.00	2.44
G	0.051	0.203
H	0.76	1.52
All Dimensions in mm		

### Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SS12	SS13	SS14	SS15	SS16	SS18	SS19	S100	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	V	
Working Peak Reverse Voltage	$V_{RWM}$										
DC Blocking Voltage	$V_R$										
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	63	70	V	
Average Rectified Output Current (Note 1)	$I_O$	1.0								A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30								A	
Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	0.50			0.70		0.85			V	
Peak Reverse Current @ $T_J = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$	$I_{RM}$					0.5		10			mA
Typical Junction Capacitance (Note 2)	$C_J$	110					80				pF
Thermal Resistance, Junction to Ambient (Note 1)	$R_{JA}$						88				°C/W
Thermal Resistance, Junction to Lead (Note 1)	$R_{JL}$						28				
Operating Temperature Range	$T_J$	-55 to +125				-55 to +150					°C
Storage Temperature Range	$T_{STG}$	-55 to +150									°C

Note: 1. Mounted on FR-4 PCB with 5.0 x 5.0mm copper pads.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

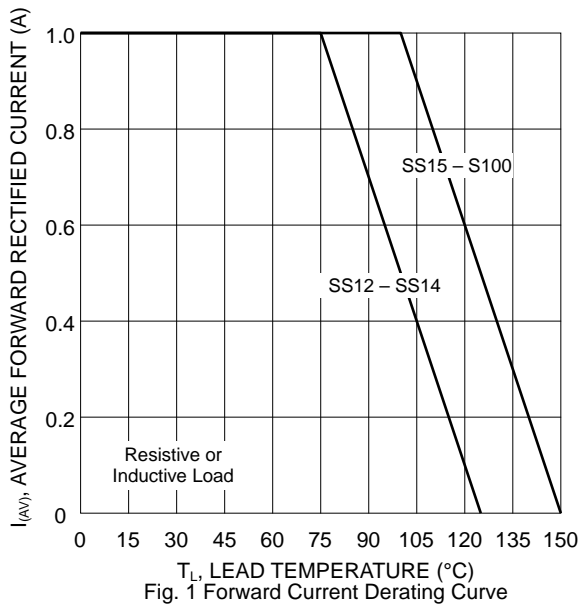


Fig. 1 Forward Current Derating Curve

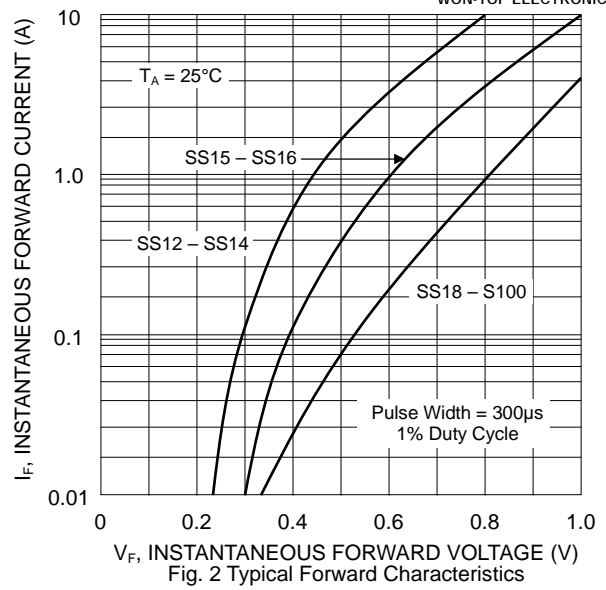


Fig. 2 Typical Forward Characteristics

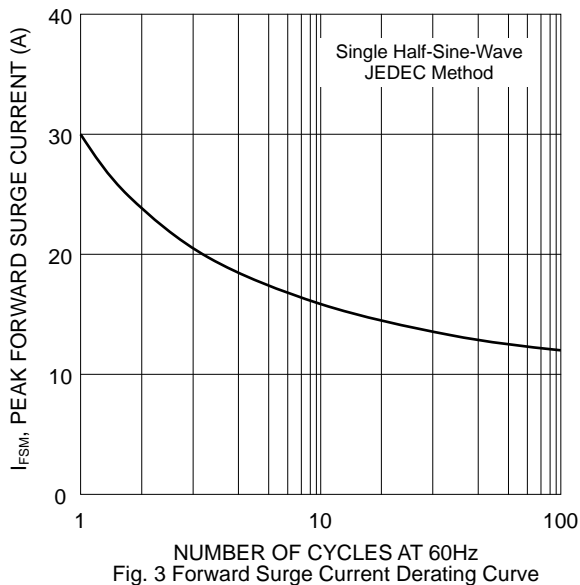


Fig. 3 Forward Surge Current Derating Curve

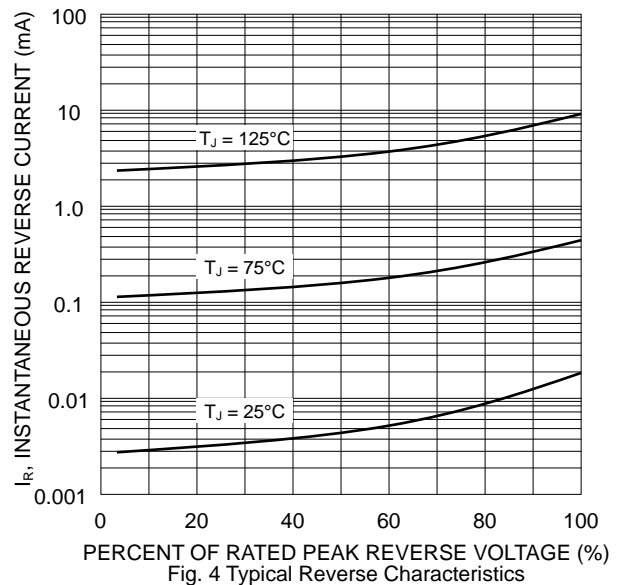


Fig. 4 Typical Reverse Characteristics

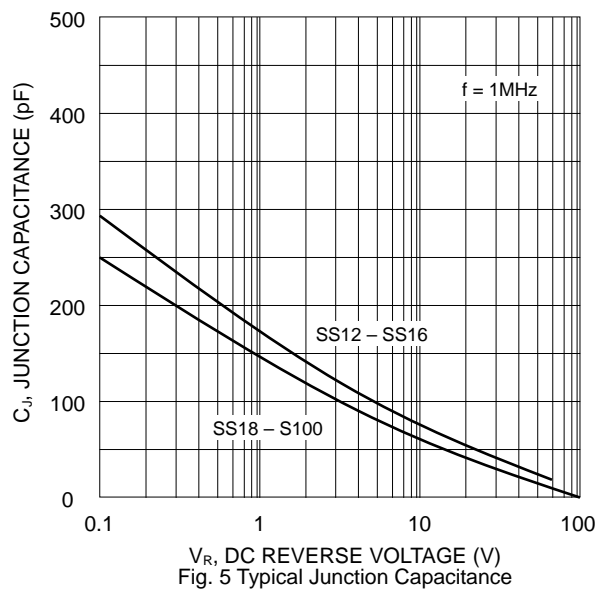


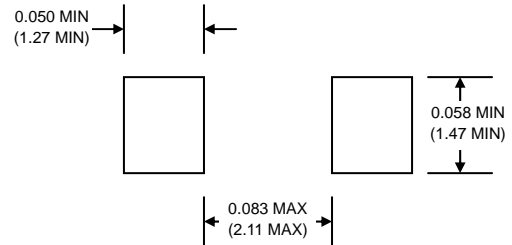
Fig. 5 Typical Junction Capacitance

## MARKING INFORMATION



Cathode = Polarity Band  
 SS1x = Device Number Except S100  
 x = 2, 3, 4, 5, 6, 8 or 9

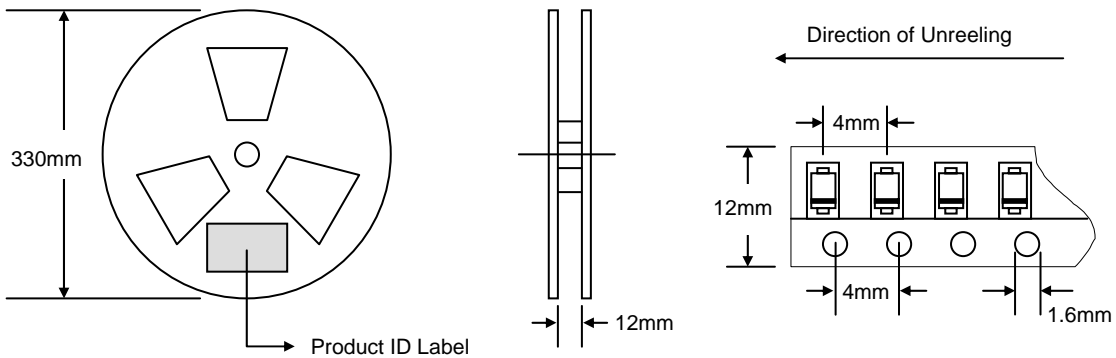
## RECOMMENDED FOOTPRINT



inches(mm)

## PACKAGING INFORMATION

### TAPE & REEL



Reel Diameter (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
330	5,000	340 x 337 x 45	10,000	370 x 370 x 420	80,000	14.0

**Note:** 1. Paper reel, white or gray color.  
 2. Components are packed in accordance with EIA standard 481-1 and 481-2.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SS12-T3	SMA	5000/Tape & Reel
SS13-T3	SMA	5000/Tape & Reel
SS14-T3	SMA	5000/Tape & Reel
SS15-T3	SMA	5000/Tape & Reel
SS16-T3	SMA	5000/Tape & Reel
SS18-T3	SMA	5000/Tape & Reel
SS19-T3	SMA	5000/Tape & Reel
S100-T3	SMA	5000/Tape & Reel

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, SS12-T3-LF.**

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