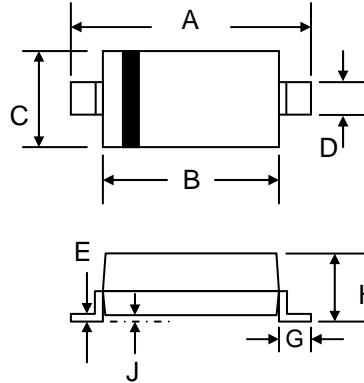


Features

- **Very Low Forward Voltage**
- Fast Switching Speed
- PN Junction Guard Ring for Transient and ESD Protection
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0



SOD-123		
Dim	Min	Max
A	3.60	3.90
B	2.50	2.80
C	1.40	1.80
D	0.50	0.70
E	—	0.20
G	0.25	—
H	0.95	1.35
J	—	0.12
All Dimensions in mm		

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx.)
- Marking: Device Code, See Page 3
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 4**

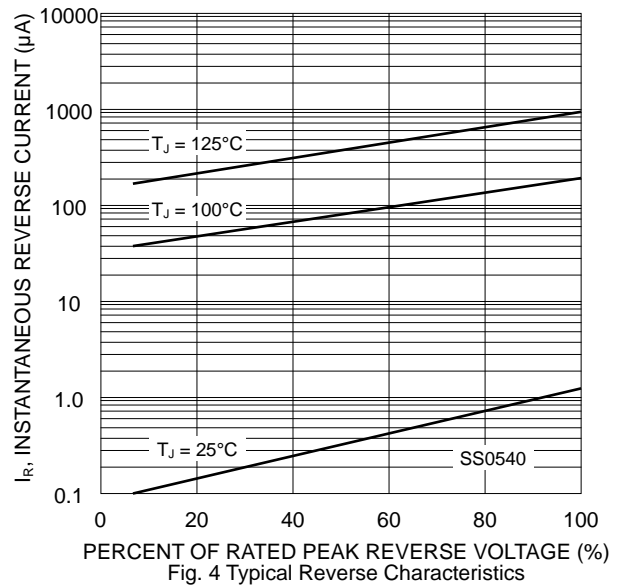
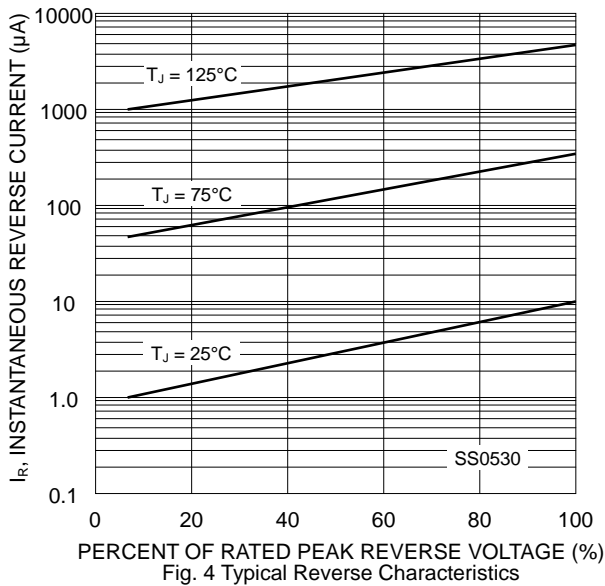
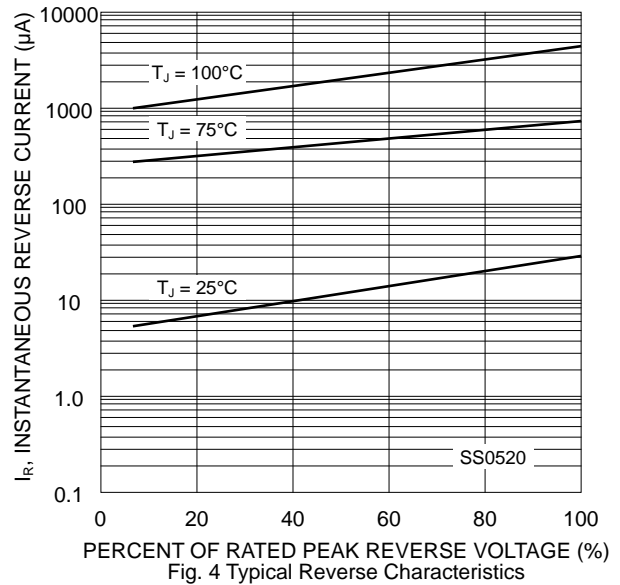
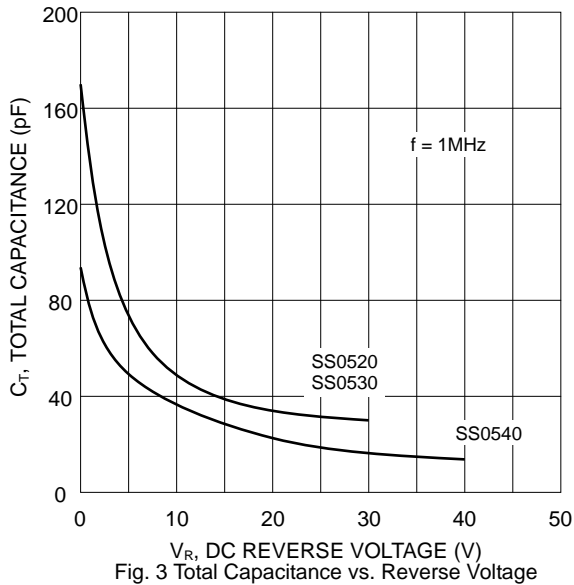
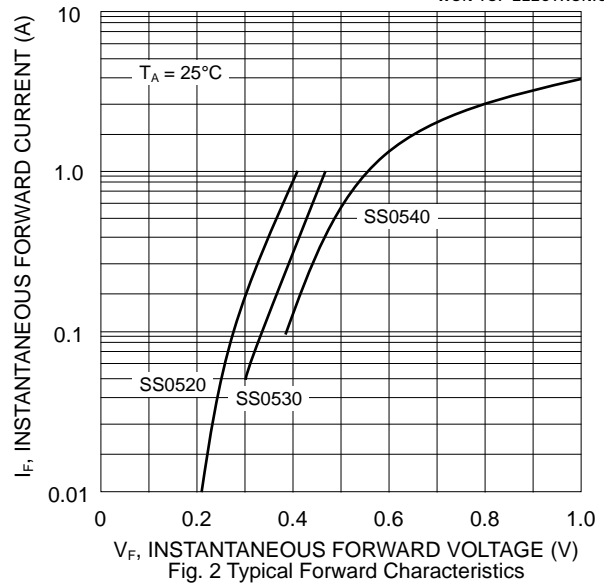
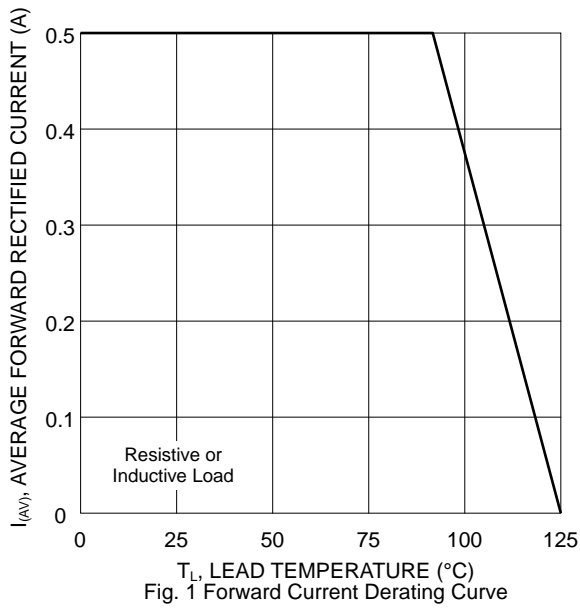
Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SS0520	SS0530	SS0540	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	V
Forward Continuous Current (Note 1) @ $T_L = 90^\circ\text{C}$	I_F	0.5			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	5.5			A
Thermal Resistance, Junction to Lead (Note 2) Thermal Resistance, Junction to Ambient (Note 1)	R_{JL} R_{JA}	150 206		118 206	$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to +125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150			$^\circ\text{C}$

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SS0520	SS0530	SS0540	Unit
Maximum Forward Voltage Drop @ $I_F = 0.1\text{A}$ @ $I_F = 0.5\text{A}$ @ $I_F = 1.0\text{A}$	V_{FM}	0.300 0.385 —	0.375 0.430 —	— 0.510 0.620	V
Peak Reverse Current @ $T_J = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$	I_{RM}	250 8.0	130 5.0	20 13	μA mA

Note: 1. Mounted on FR-4 PCB with 645mm² pad size.
2. Mounted on FR-4 PCB with minimum recommended pad size.



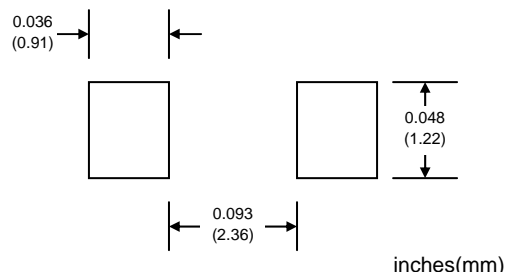
MARKING INFORMATION



xx = Device Code, See Table Below

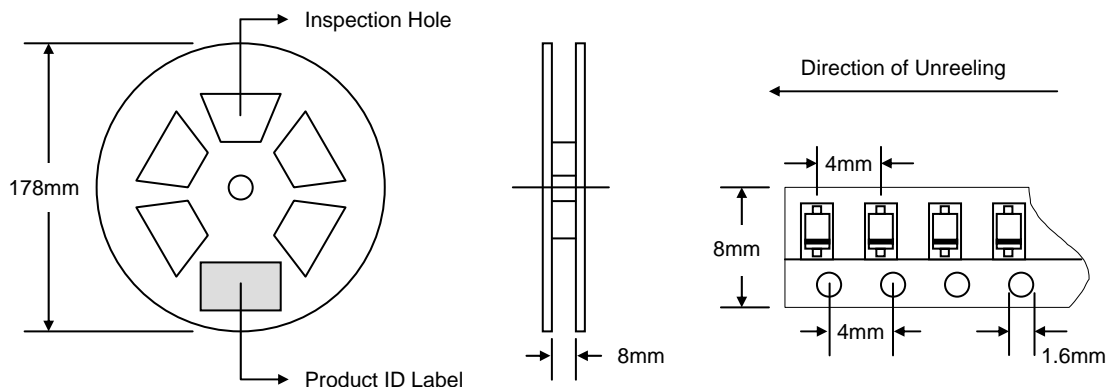
Mfg Site	SS0520	SS0530	SS0540
TW Plant	B2	B3	B4
CN Plant	SD	SE	SF

RECOMMENDED FOOTPRINT



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)
178	3,000	187 x 187 x 65	15,000	390 x 240 x 420	150,000	10.0

Note: 1. Anti-static plastic reel, white, water clear or blue color. Inspection hole might be varied in different alignment.
2. Components are packed in accordance with EIA standard 481-1 and 481-2.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SS0520-T1	SOD-123	3000/Tape & Reel
SS0530-T1	SOD-123	3000/Tape & Reel
SS0540-T1	SOD-123	3000/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, SS0520-T1-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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