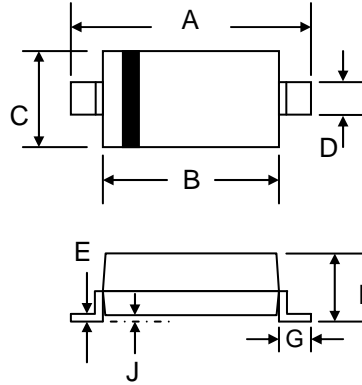


Features

- **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-323		
Dim	Min	Max
A	2.30	2.75
B	1.60	1.80
C	1.15	1.35
D	0.25	0.40
E	0.09	0.18
G	0.20	0.40
H	0.80	1.15
J	—	0.12
All Dimensions in mm		

Mechanical Data

- Case: SOD-323, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.004 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	SS0520WS	SS0530WS	SS0540WS	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
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)	R_{JL}	150		118	$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction to Ambient (Note 1)	R_{JA}	206		206	
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	SS0520WS	SS0530WS	SS0540WS	Unit
Maximum Forward Voltage Drop @ $I_F = 0.1\text{A}$	V_{FM}	0.300	0.375	—	V
@ $I_F = 0.5\text{A}$		0.385	0.430	0.510	
@ $I_F = 1.0\text{A}$		—	—	0.620	
Peak Reverse Current @ $T_J = 25^\circ\text{C}$	I_{RM}	250	130	20	μA
At Rated DC Blocking Voltage @ $T_J = 100^\circ\text{C}$		8.0	5.0	13	mA

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

SS0520WS – SS0540WS

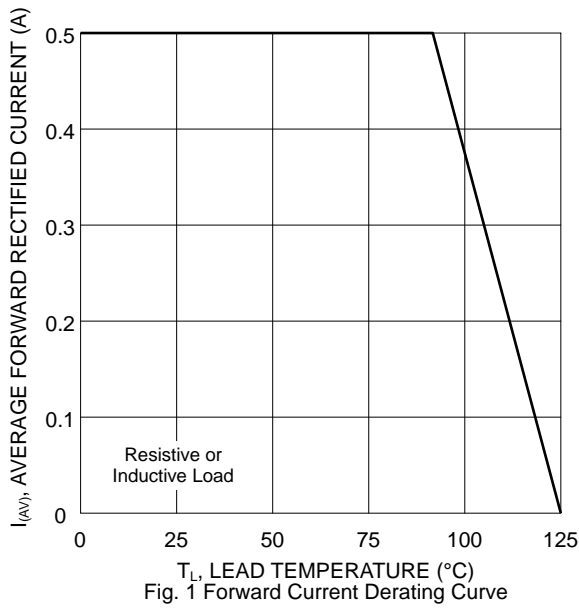


Fig. 1 Forward Current Derating Curve

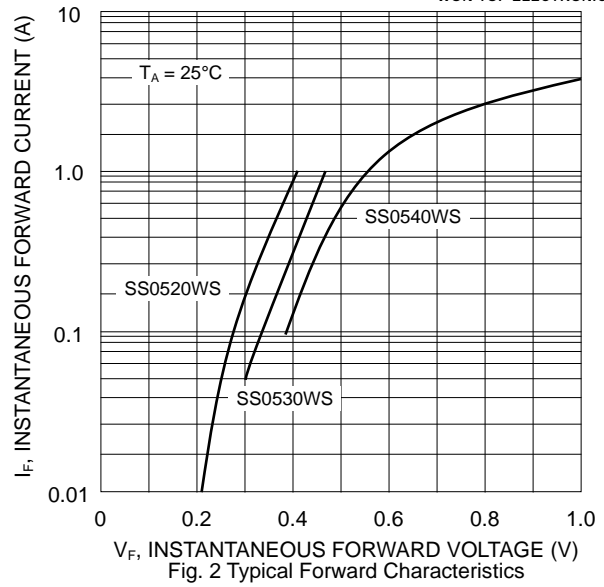


Fig. 2 Typical Forward Characteristics

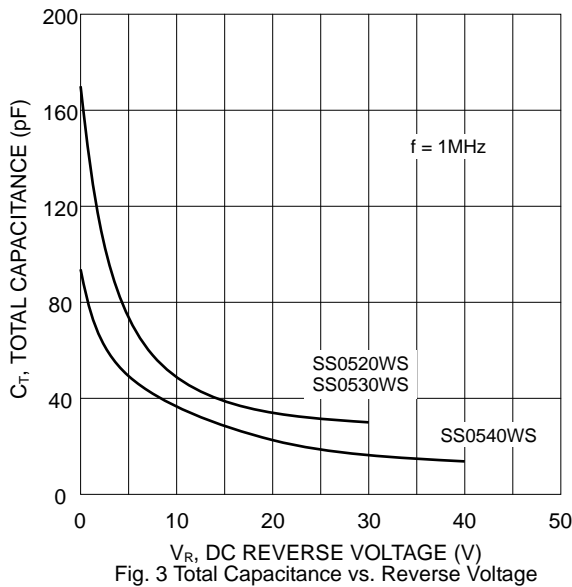


Fig. 3 Total Capacitance vs. Reverse Voltage

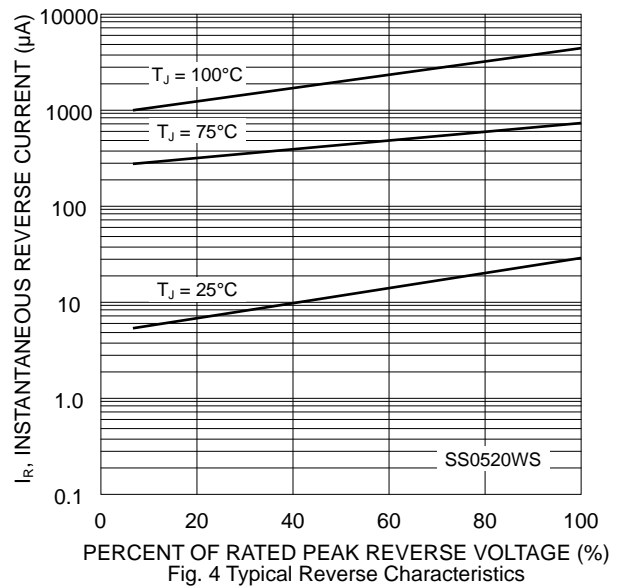


Fig. 4 Typical Reverse Characteristics

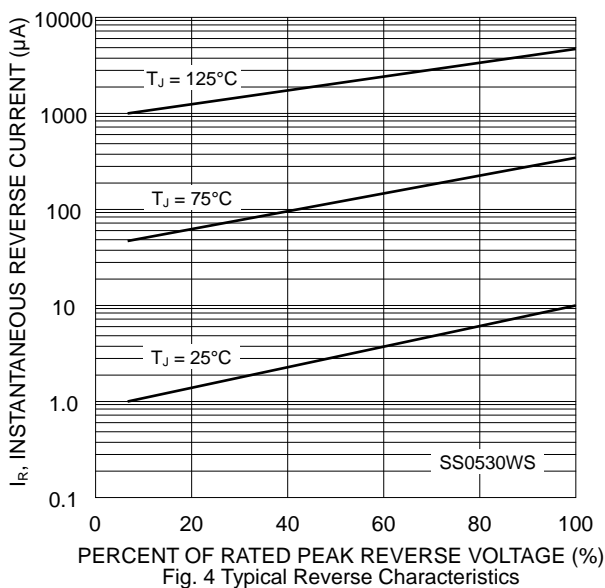


Fig. 4 Typical Reverse Characteristics

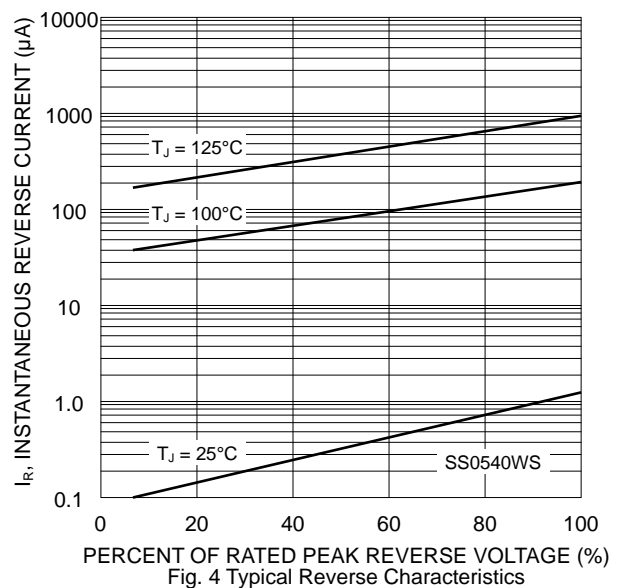


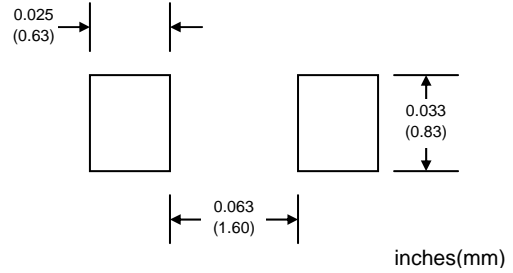
Fig. 4 Typical Reverse Characteristics

MARKING INFORMATION



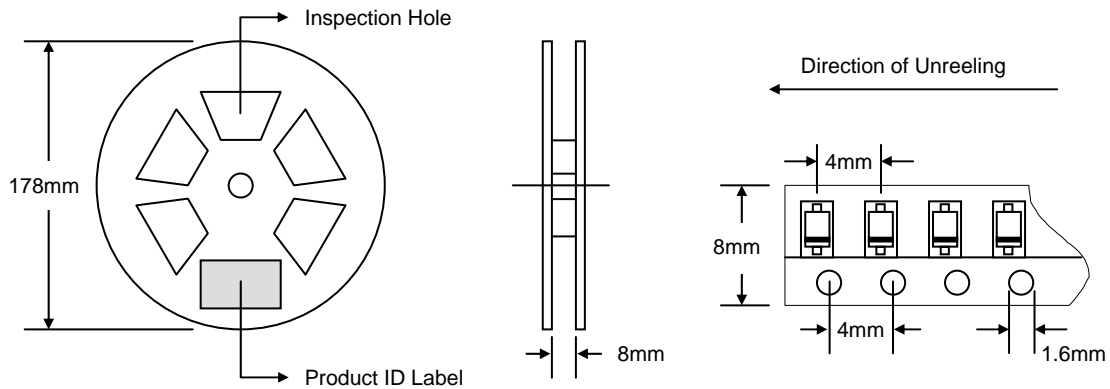
Cathode = Polarity Band
 Sx = Device Code
 x = D (SS0520WS)
 E (SS0530WS)
 F (SS0540WS)

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	7.0

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
SS0520WS-T1	SOD-323	3000/Tape & Reel
SS0530WS-T1	SOD-323	3000/Tape & Reel
SS0540WS-T1	SOD-323	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, SS0520WS-T1-LF.**

WON-TOP ELECTRONICS and  are registered trademarks of Won-Top Electronics Co., Ltd (WTE). WTE has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

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.

Won-Top Electronics Co., Ltd.
No. 44 Yu Kang North 3rd Road,
Chine Chen Dist., Kaohsiung 806, Taiwan
Phone: 886-7-822-5408 or 886-7-822-5410
Fax: 886-7-822-5417
Email: sales@wontop.com
Internet: <http://www.wontop.com>

We power your everyday.