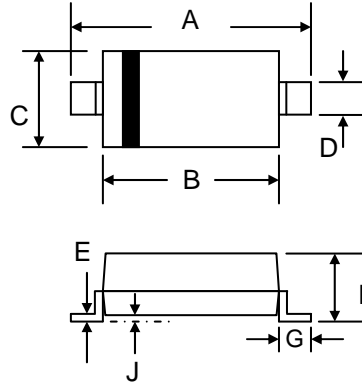


Features

- 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	SS1020WS	SS1030WS	SS1040WS	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
Average Rectified Output Current (Note 1) @ $T_L = 25^\circ\text{C}$	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}	25			A
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125			$^\circ\text{C}$

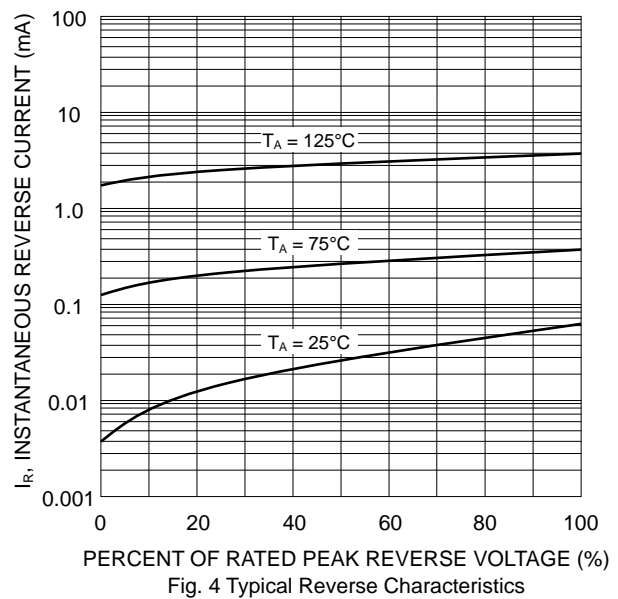
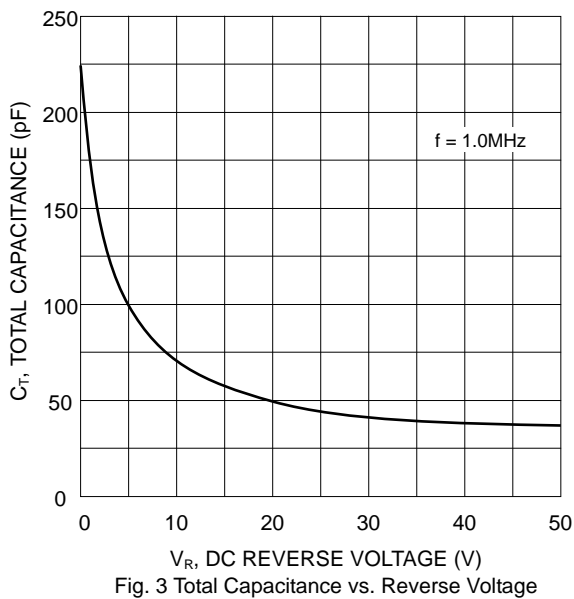
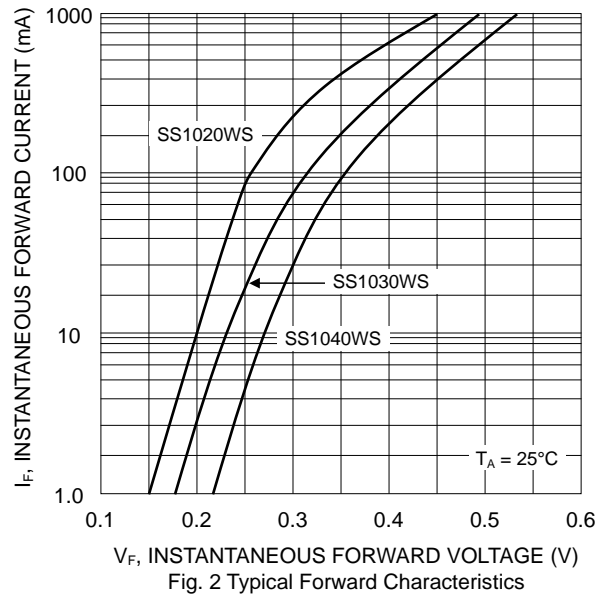
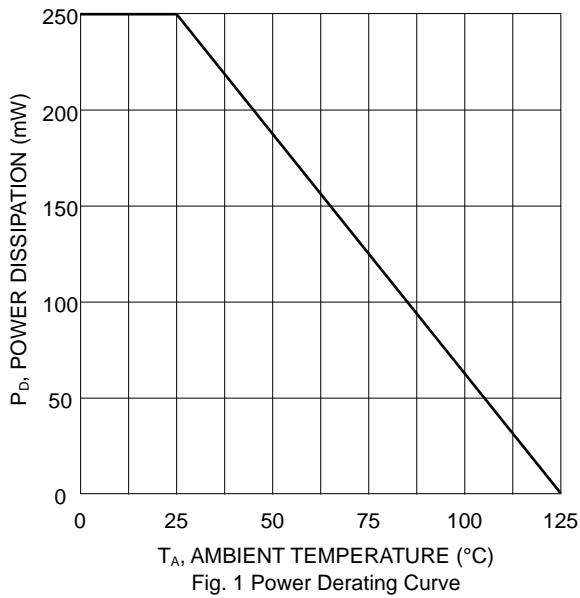
Thermal Characteristics

Characteristic	Symbol	SS1020WS	SS1030WS	SS1040WS	Unit
Power Dissipation (Note 1)	P_D	250			mW
Thermal Resistance, Junction to Ambient (Note 1)	R_{JA}	500			$^\circ\text{C}/\text{W}$

Note: 1. Mounted on FR-4 PC board with minimum recommended pad layout.

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

Characteristic	Symbol	SS1020WS	SS1030WS	SS1040WS	Unit
Min. Reverse Breakdown Voltage @ $I_R = 1.0\text{mA}$	$V_{(BR)}$	20	30	40	V
Max. Forward Voltage Drop @ $I_F = 1.0\text{A}$ @ $I_F = 3.0\text{A}$	V_{FM}	0.450 0.750	0.550 0.875	0.600 0.900	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_A = 25^\circ\text{C}$ @ $T_A = 100^\circ\text{C}$	I_{RM}	1.0 10			mA
Diode Capacitance ($V_R = 4.0\text{V}$, $f = 1.0\text{MHz}$)	C_D	120			pF

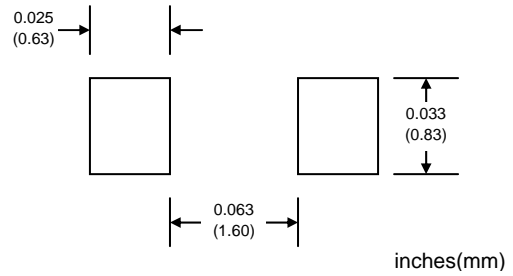


MARKING INFORMATION



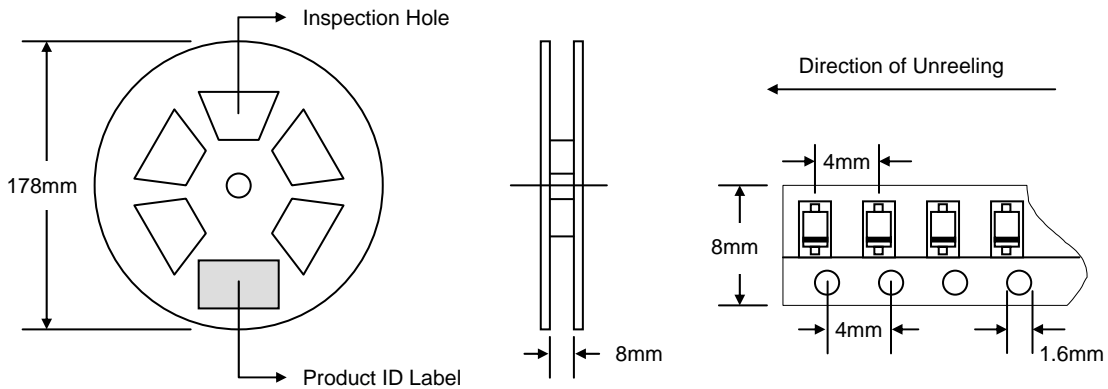
Cathode = Polarity Band
 Sx = Device Code
 x = J (SS1020WS)
 K (SS1030WS)
 L (SS1040WS)

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
SS1020WS-T1	SOD-323	3000/Tape & Reel
SS1030WS-T1	SOD-323	3000/Tape & Reel
SS1040WS-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, SS1020WS-T1-LF.**

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