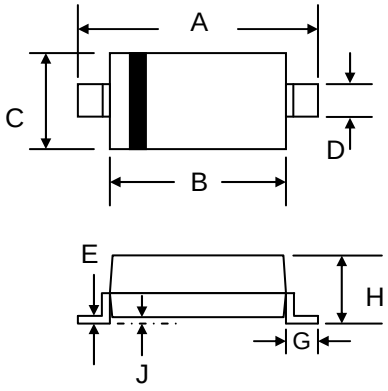
SS0520 – SS0540

SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

- Very Low Forward Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



SOD-123		
Dim	**Min**	**Max**
A	3.6	3.9
B	2.5	2.8
C	1.4	1.8
D	0.5	0.7
E	—	0.2
G	0.4	—
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°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)	I_F	500			mA
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 Ambient (Note 1)	$R_{\theta JA}$	206			°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125			°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	SS0520	SS0530	SS0540	Unit
Forward Voltage Drop @I_F = 0.1A / 0.5A	V_{FM}	0.3 / 0.385	0.375 / 0.43	— / 0.51	V
Peak Reverse Leakage Current @V_R = 50% / 100% DC Blocking Voltage	I_{RM}	75 / 250	20 / 130	10 / 20	µA
Typical Junction Capacitance (V_R = 0V DC, f = 1MHz)	C_j	170			pF

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

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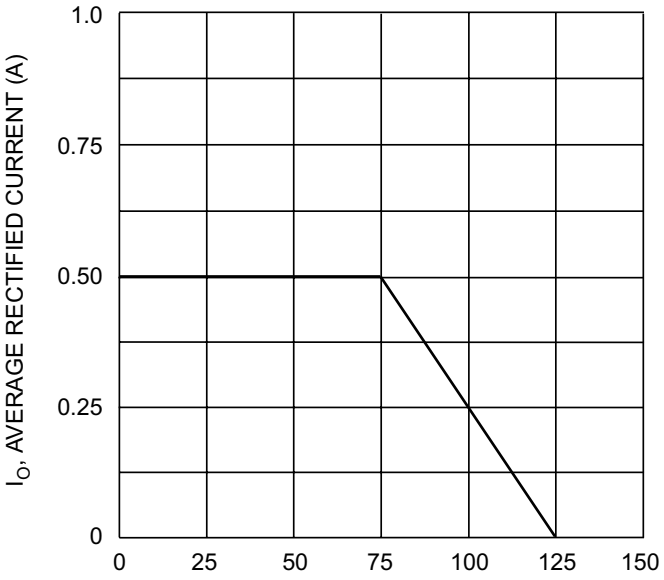


Fig. 1 Forward Current Derating Curve

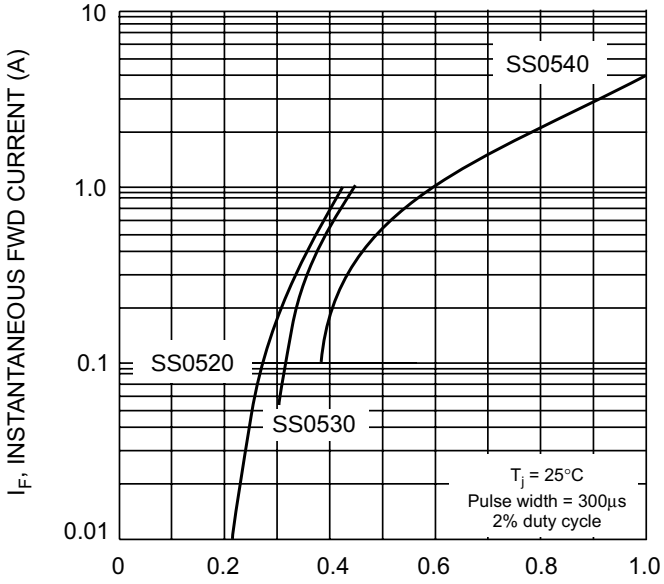


Fig. 2 Typical Forward Characteristics

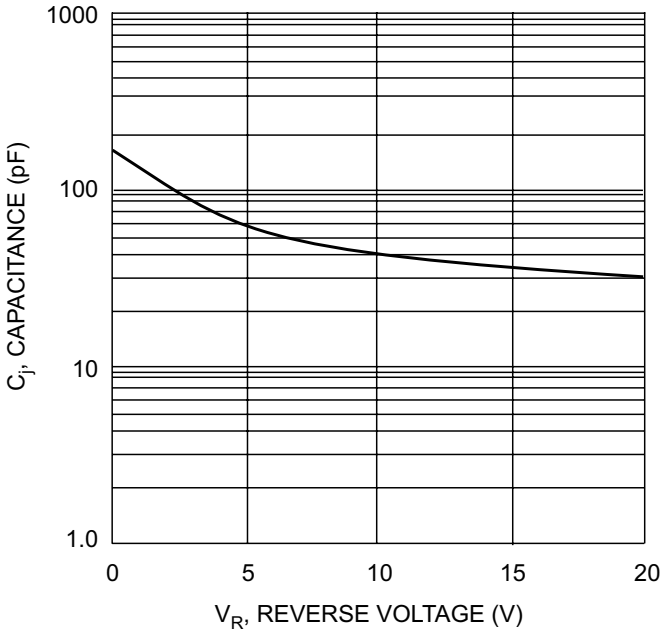


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

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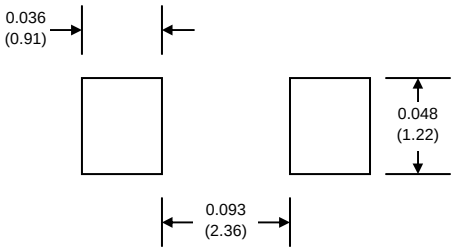
MARKING INFORMATION



xx = Device Code, See Table Below

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

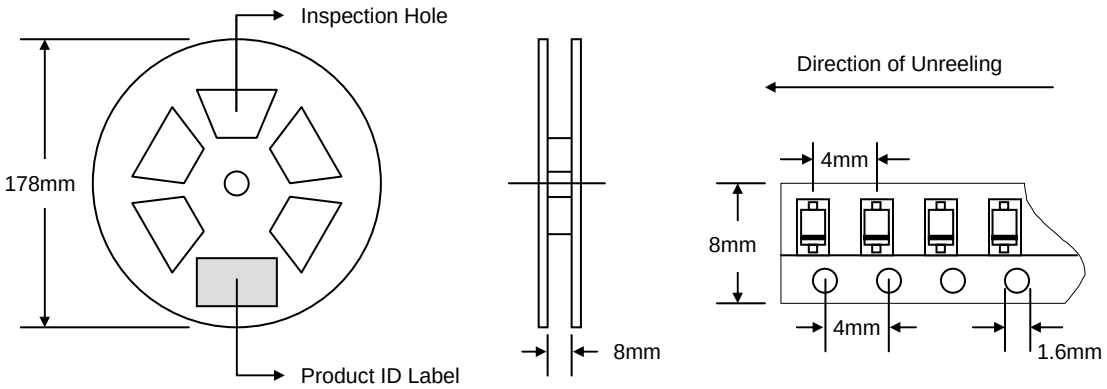
RECOMMENDED FOOTPRINT



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)
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.

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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.

Won-Top Electronics Co., Ltd.
No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, 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

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