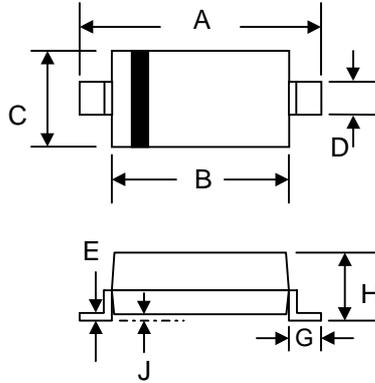


### Features

- Low Turn-on 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: SS0520 B2  
SS0530 B3  
SS0540 B4

### 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)	$I_F$	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
Power Dissipation (Note 1)	$P_d$	410			mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	244			$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +125			$^\circ\text{C}$

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

Characteristic	Symbol	SS0520	SS0530	SS0540	Unit
Forward Voltage Drop @ $I_F = 0.1\text{A} / 0.5\text{A}$	$V_{FM}$	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	$\mu\text{A}$
Typical Junction Capacitance ( $V_R = 0\text{V DC}, f = 1\text{MHz}$ )	$C_j$	170			pF

Note: 1. Valid provided that terminals are kept at ambient temperature.

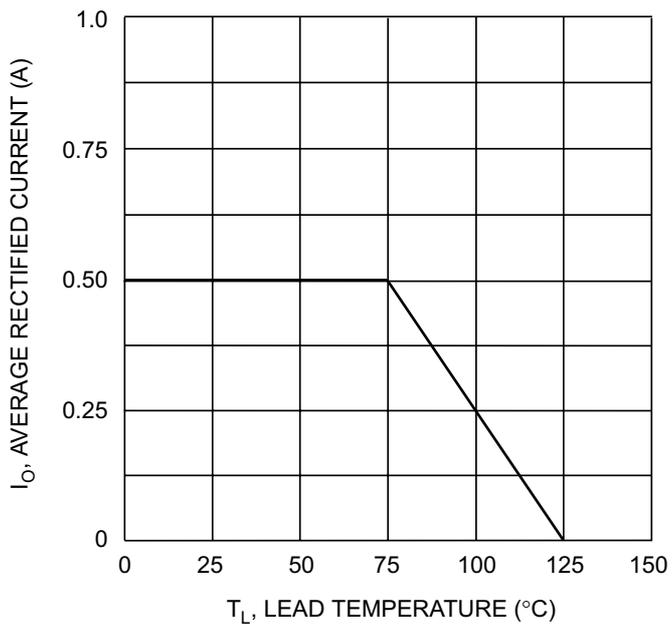


Fig. 1 Forward Current Derating Curve

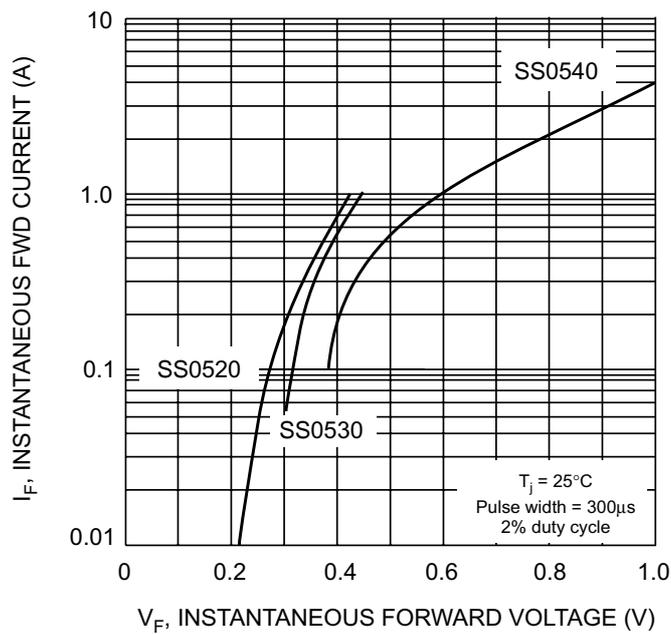


Fig. 2 Typical Forward Characteristics

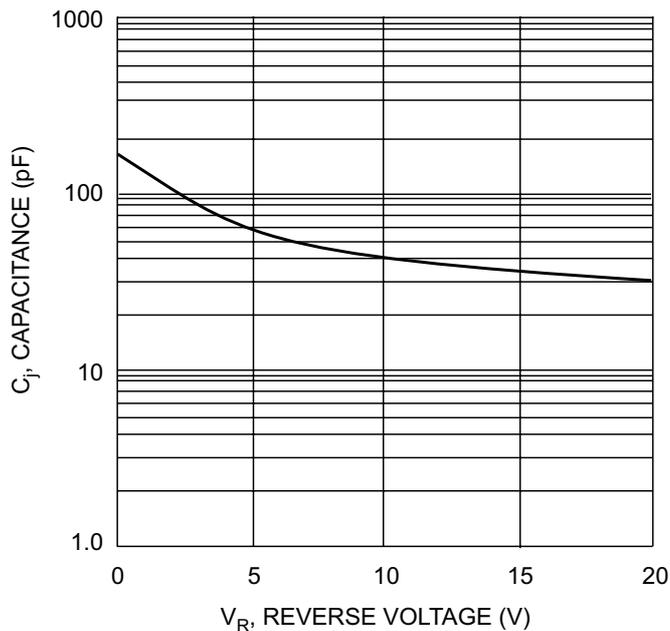


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

## ORDERING INFORMATION

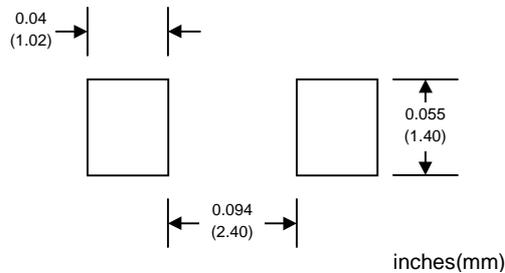
Product No.♦	Package Type	Shipping Quantity
<b>SS0520-T1</b>	SOD-123	3000/Tape & Reel
SS0520-T3	SOD-123	10000/Tape & Reel
<b>SS0530-T1</b>	SOD-123	3000/Tape & Reel
SS0530-T3	SOD-123	10000/Tape & Reel
<b>SS0540-T1</b>	SOD-123	3000/Tape & Reel
SS0540-T3	SOD-123	10000/Tape & Reel

Products listed in **bold** are WTE **Preferred** devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



Won-Top Electronics Co., Ltd (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.

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