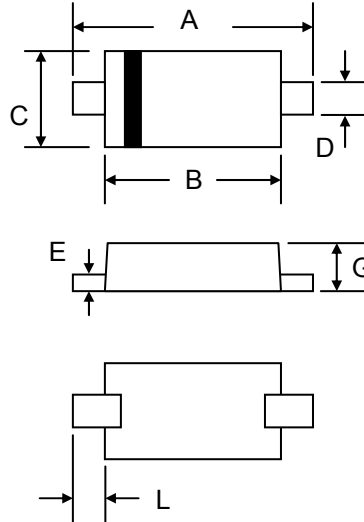


### Features

- Silicon Epitaxial Planar Die Construction
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- Plastic Material – UL Recognition Flammability Classification 94V-0



SOD-523		
Dim	Min	Max
A	1.50	1.70
B	1.10	1.30
C	0.70	0.90
D	0.30 Typical	
E	0.10 Typical	
G	0.50	0.70
L	0.15	0.25
All Dimensions in mm		

### Mechanical Data

- Case: SOD-523, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.002 grams (approx.)
- Marking: G
- **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	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	85	V
Working Peak Reverse Voltage DC Blocking Voltage	$V_{RWM}$ $V_R$	80	V
Forward Continuous Current	$I_{FM}$	200	mA
Average Rectified Output Current	$I_O$	100	mA
Non-Repetitive Peak Forward Surge Current @ $t = 10\text{ms}$	$I_{FSM}$	1.0	A
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

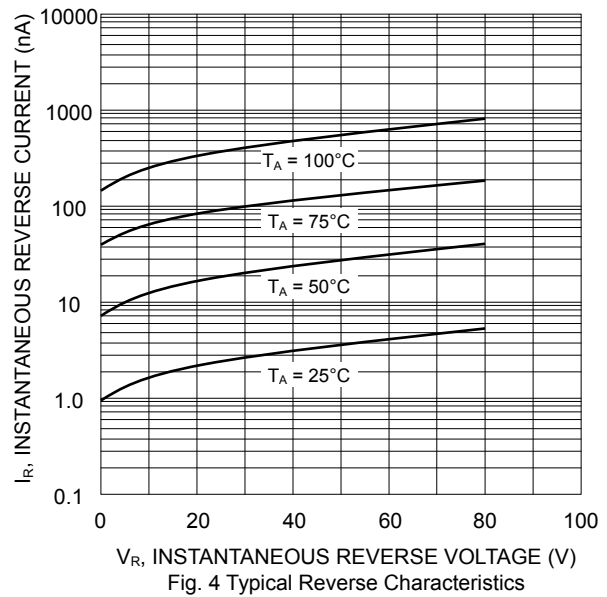
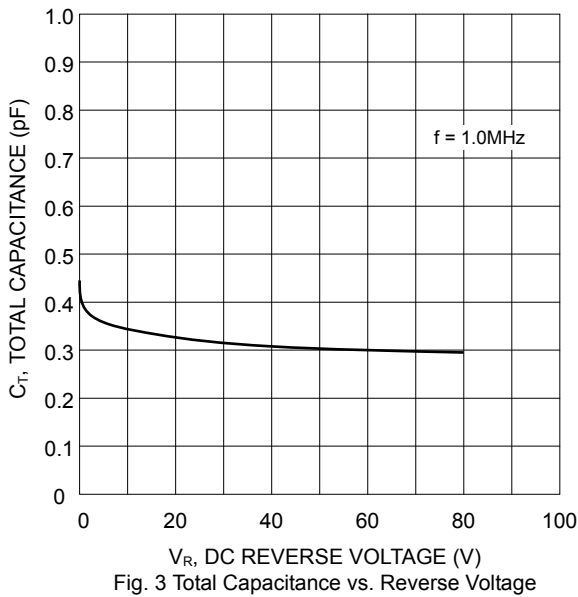
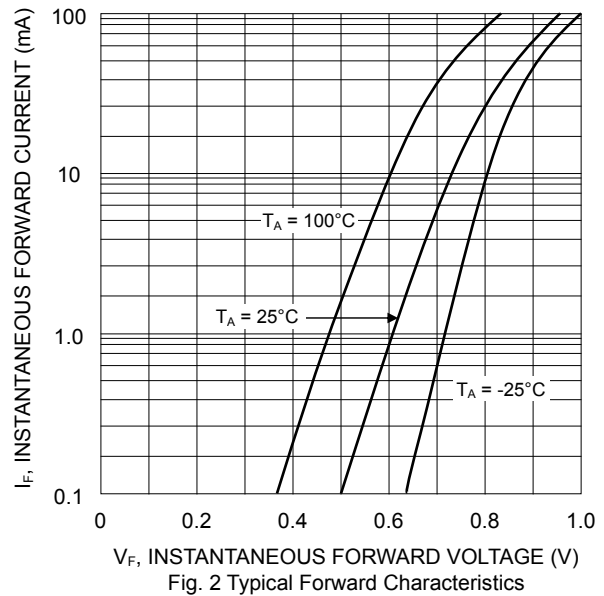
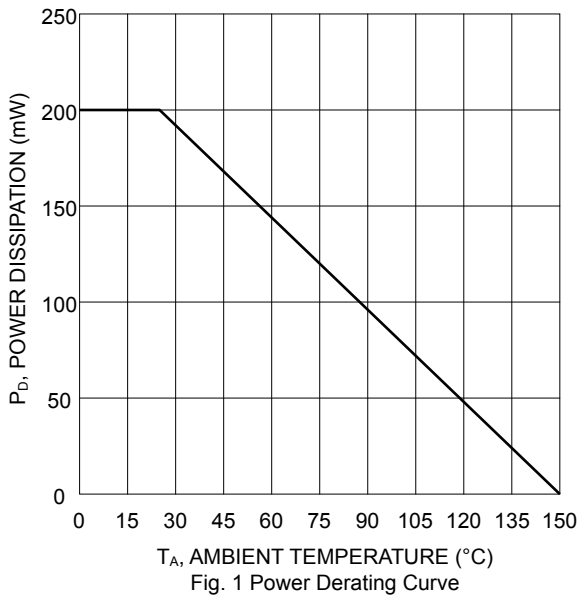
### Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	$P_D$	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{JA}$	635	$^\circ\text{C/W}$

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	Min.	Typ.	Max.	Unit
Forward Voltage Drop @ $I_F = 1.0\text{mA}$ @ $I_F = 10\text{mA}$ @ $I_F = 100\text{mA}$	$V_{FM}$		0.62 0.75 0.97	— — 1.2	V
Peak Reverse Leakage Current @ $V_R = 30\text{V}$ @ $V_R = 80\text{V}$	$I_{RM}$			100 500	nA
Diode Capacitance ( $V_R = 0\text{V}$ , $f = 1.0\text{MHz}$ )	$C_D$		0.5	3.0	pF
Reverse Recovery Time ( $I_F = I_R = 10\text{mA}$ , $I_{RR} = 0.1 \times I_R$ , $R_L = 100\Omega$ )	$t_{rr}$		1.6	4.0	nS

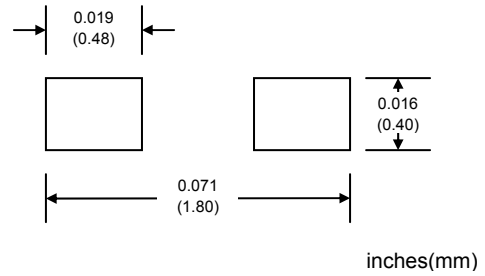


**MARKING INFORMATION**



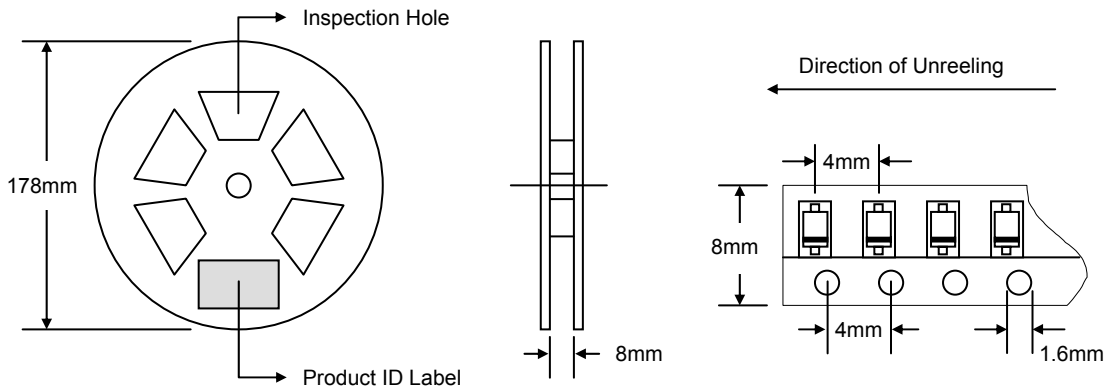
Cathode = Polarity Band  
G = Device Code

**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
1SS387-T1	SOD-523	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, 1SS387-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 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.*