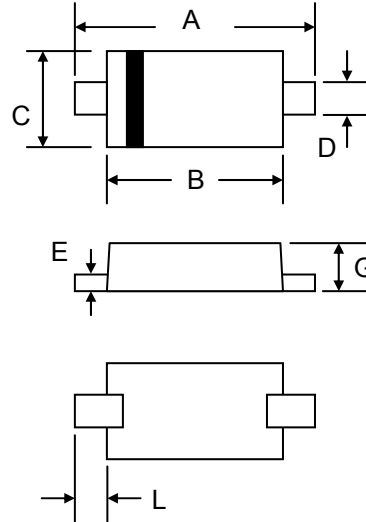


Features

- 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: 6
- **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}	100	V
Working Peak Reverse Voltage DC Blocking Voltage	V_{RWM} V_R	85	V
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$	I_{FSM}	500	mA
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	$^{\circ}\text{C}/\text{W}$

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	Min.	Typ.	Max.	Unit
Forward Voltage Drop @ $I_F = 150\text{mA}$	V_{FM}			1.2	V
Peak Reverse Leakage Current @ $V_R = 85\text{V}$	I_{RM}			100	nA
Diode Capacitance ($V_R = 0.5\text{V}$, $f = 1.0\text{MHz}$)	C_D			3.0	pF
Reverse Recovery Time ($I_F = I_R = 10\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$)	t_{rr}			4.0	nS

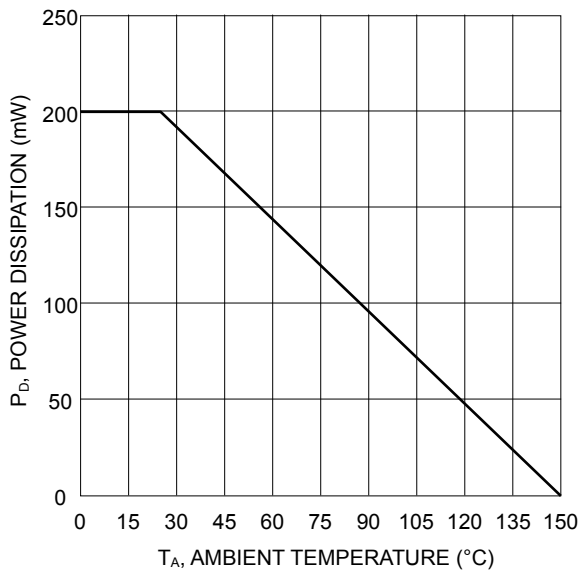


Fig. 1 Power Derating Curve

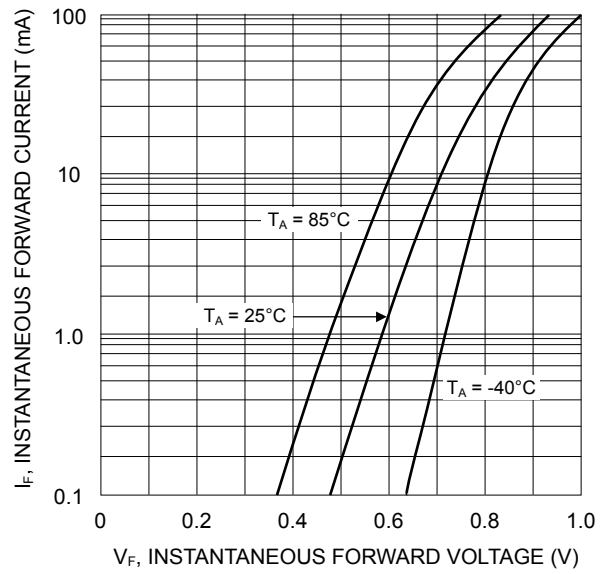


Fig. 2 Typical Forward Characteristics

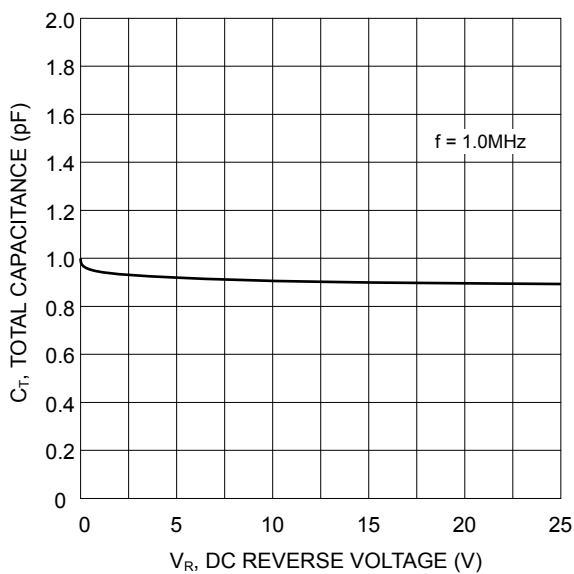


Fig. 3 Total Capacitance vs. Reverse Voltage

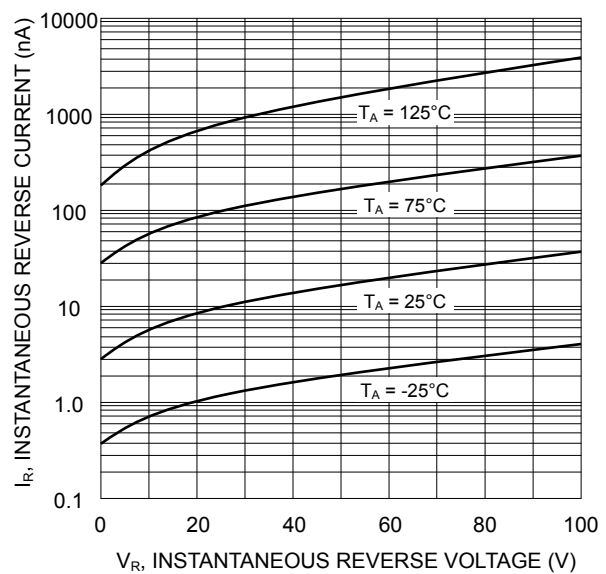
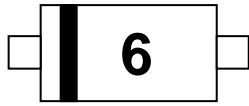


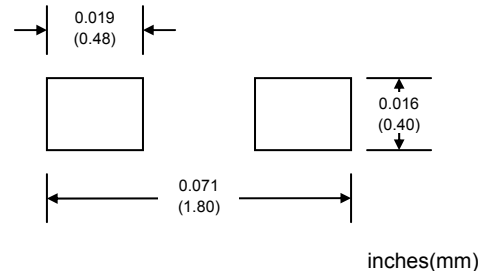
Fig. 4 Typical Reverse Characteristics

MARKING INFORMATION



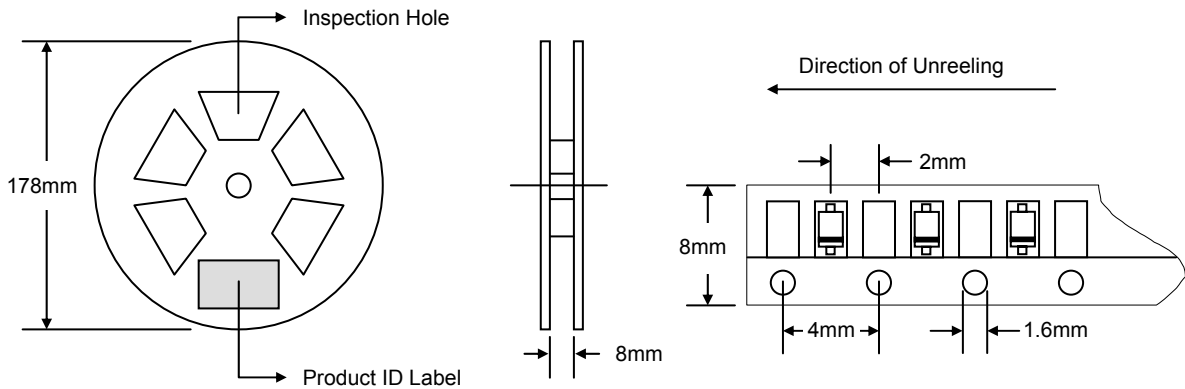
Cathode = Polarity Band
6 = Device Code

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.
3. Components are dispensed in every other cavity of the tape.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
1SS422-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, 1SS422-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.

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