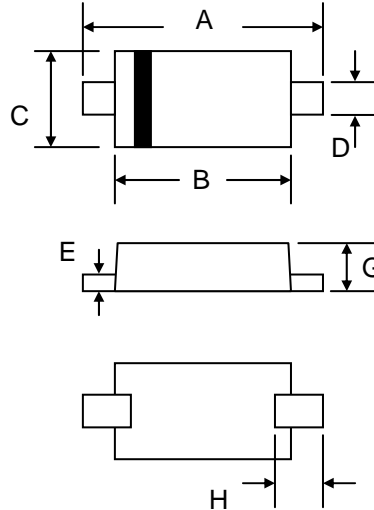


### Features

- 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-0



SOD-123FL		
Dim	Min	Max
A	3.30	3.70
B	2.60	2.95
C	1.65	1.95
D	0.75	1.35
E	0.10	0.20
G	0.98	1.08
H	0.50	0.80
All Dimensions in mm		

### Mechanical Data

- Case: SOD-123FL, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.017 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	SS1020FL	SS1030FL	SS1040FL	SS1060FL	SS10100FL	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	20	30	40	60	100	V
Forward Continuous Current (Note 1)	$I_F$	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
Thermal Resistance, Junction to Lead (Note 2) Thermal Resistance, Junction to Ambient (Note 1)	$R_{JL}$ $R_{JA}$	26 85					$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +125					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

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

Characteristic	Symbol	SS1020FL	SS1030FL	SS1040FL	SS1060FL	SS10100FL	Unit
Maximum Forward Voltage Drop @ $I_F = 1.0\text{A}$	$V_{FM}$	0.52	0.55		0.70	0.85	V
Peak Reverse Leakage Current @ $V_{RRM}$	$I_{RM}$	100					$\mu\text{A}$
Typical Junction Capacitance (Note 3)	$C_J$	60			50	40	pF

- Note: 1. Mounted on FR-4 PCB with 645mm<sup>2</sup> pad size.  
 2. Mounted on FR-4 PCB with minimum recommended pad size.  
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

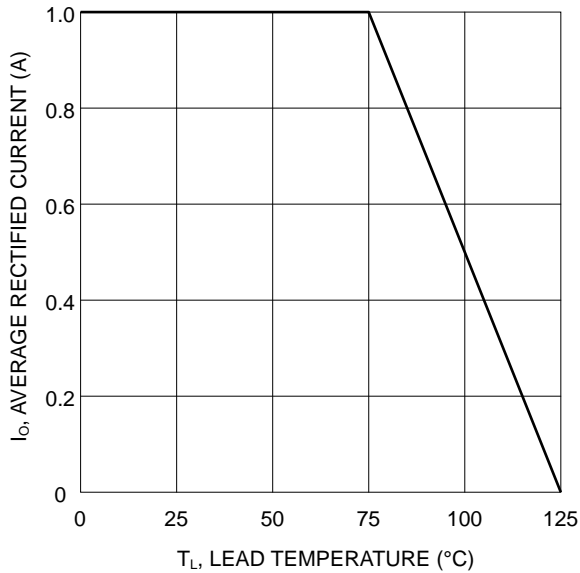


Fig. 1 Forward Current Derating Curve

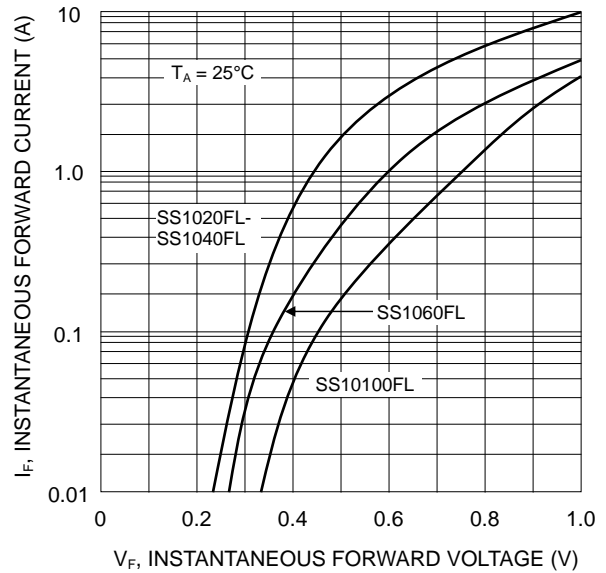


Fig. 2 Typical Forward Characteristics

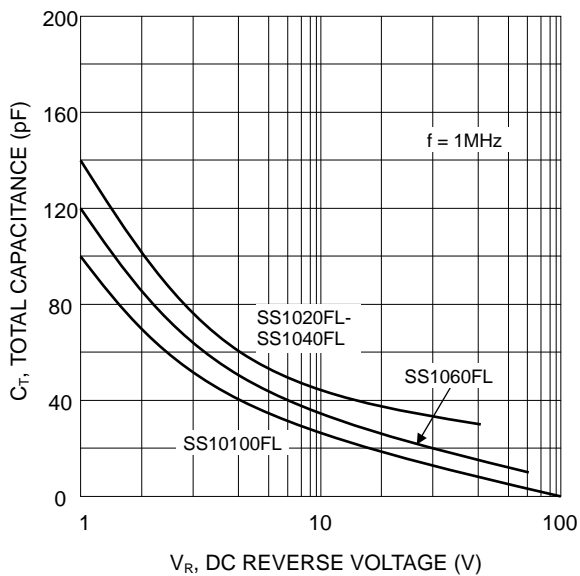


Fig. 3 Total Capacitance vs. Reverse Voltage

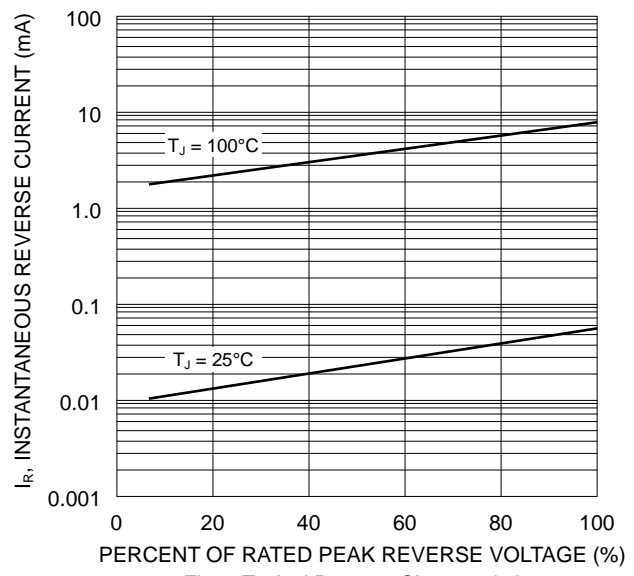


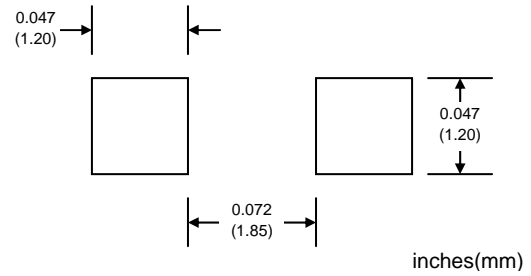
Fig. 4 Typical Reverse Characteristics

## MARKING INFORMATION



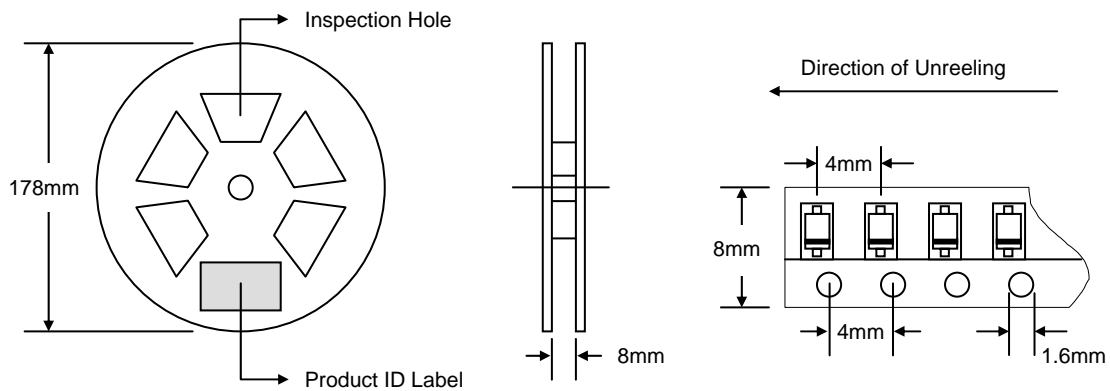
Cathode	=	Polarity Band
G2	=	SS1020FL
G3	=	SS1030FL
G4	=	SS1040FL
G6	=	SS1060FL
G10	=	SS10100FL

## 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	195 x 135 x 195	30,000	370 x 370 x 420	240,000	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.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
SS1020FL-T1	SOD-123FL	3000/Tape & Reel
SS1030FL-T1	SOD-123FL	3000/Tape & Reel
SS1040FL-T1	SOD-123FL	3000/Tape & Reel
SS1060FL-T1	SOD-123FL	3000/Tape & Reel
SS10100FL-T1	SOD-123FL	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, SS1020FL-T1-LF.**

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