

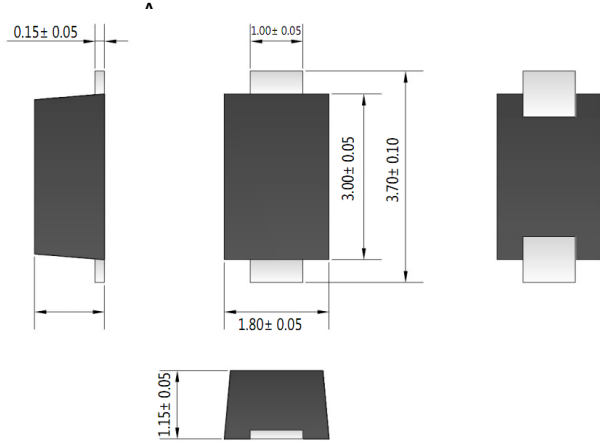
Features

- 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

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**

SOD-123FL



Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	SS2020FL	SS2030FL	SS2040FL	SS2060FL	SS20100FL	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	2.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50					A
Thermal Resistance, Junction to Lead (Note 2) Thermal Resistance, Junction to Ambient (Note 1)	R_{JL} R_{JA}	26 85					$^\circ\text{C/W}$
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	SS2020FL	SS2030FL	SS2040FL	SS2060FL	SS20100FL	Unit
Maximum Forward Voltage Drop @ $I_F = 2.0\text{A}$	V_{FM}	0.52	0.55		0.70	0.85	V
Peak Reverse Leakage Current @ V_{RRM}	I_{RM}	100					μA
Typical Junction Capacitance (Note 3)	C_J	60			50	40	pF

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

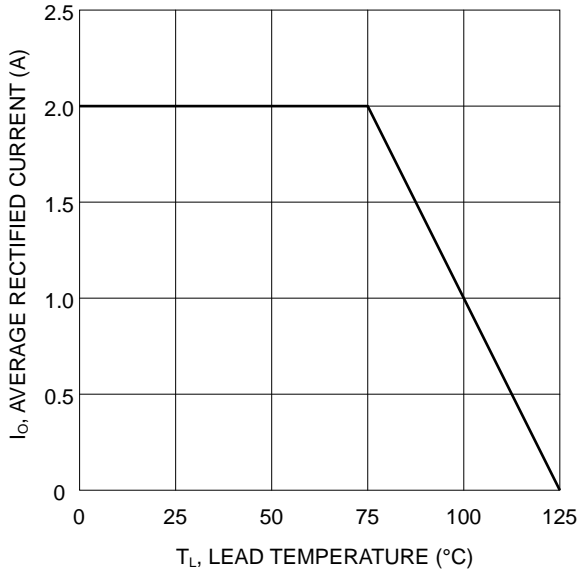


Fig. 1 Forward Current Derating Curve

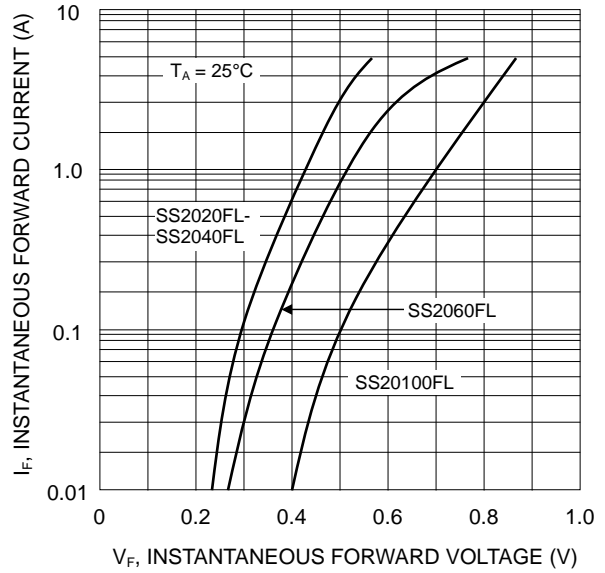


Fig. 2 Typical Forward Characteristics

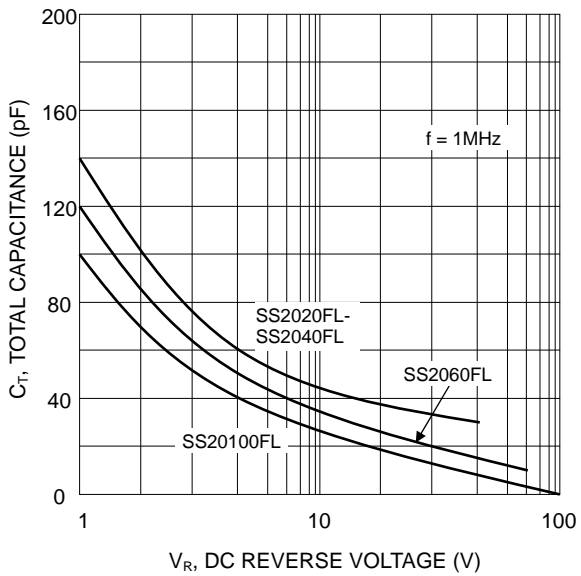


Fig. 3 Total Capacitance vs. Reverse Voltage

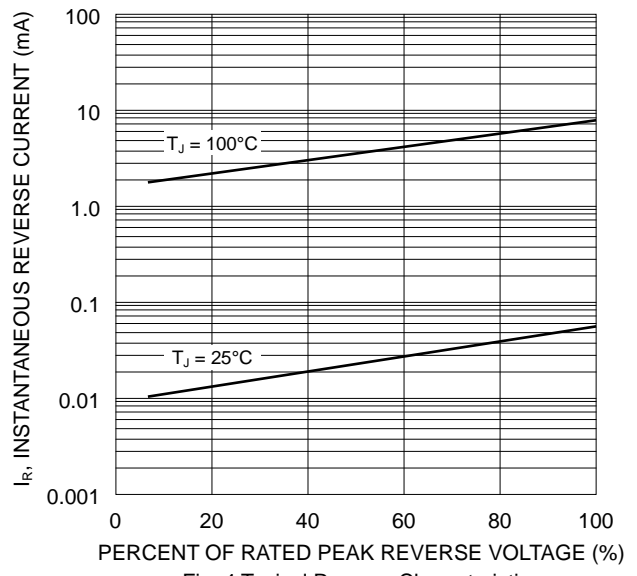


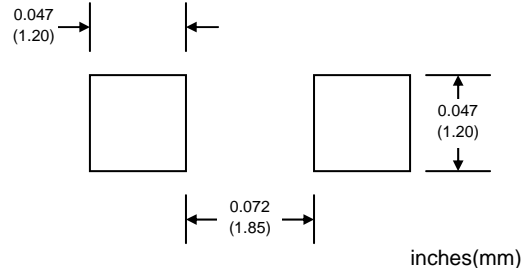
Fig. 4 Typical Reverse Characteristics

MARKING INFORMATION



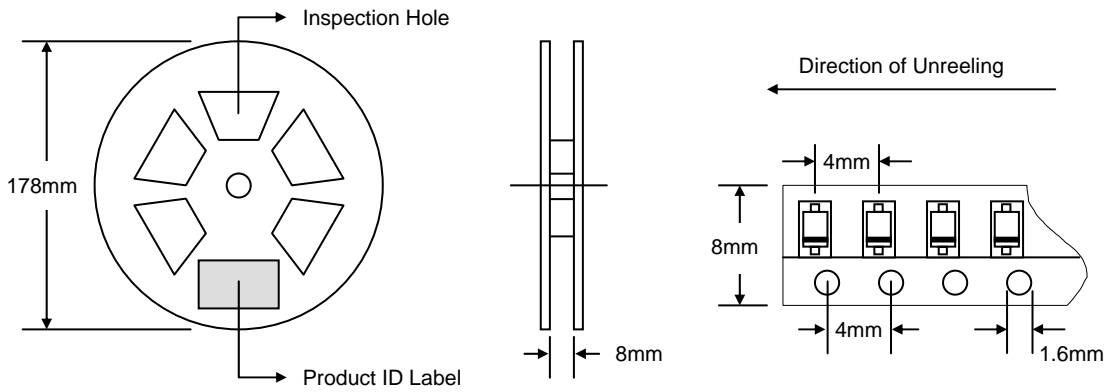
Cathode = Polarity Band
 GM = SS2020FL
 GN = SS2030FL
 GP = SS2040FL
 GQ = SS2060FL
 GR = SS20100FL

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