

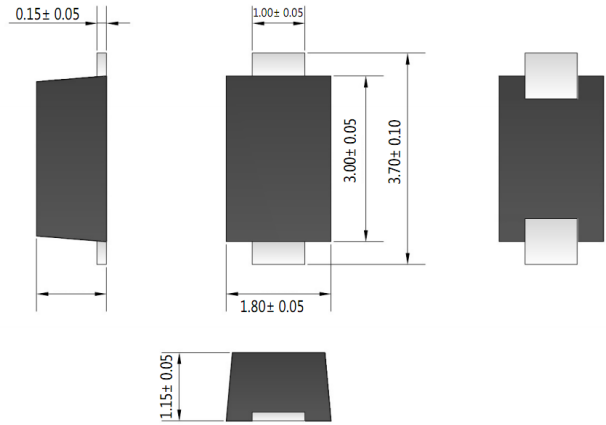
Features

- **Low Profile 1.08mm Max. Case Height**
- Glass Passivated Die Construction
- Low Forward Voltage Drop, High Efficiency
- Surge Overload Rating to 30A Peak
- Fast Recovery Time
- Ideally Suited for Automatic Assembly
- 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

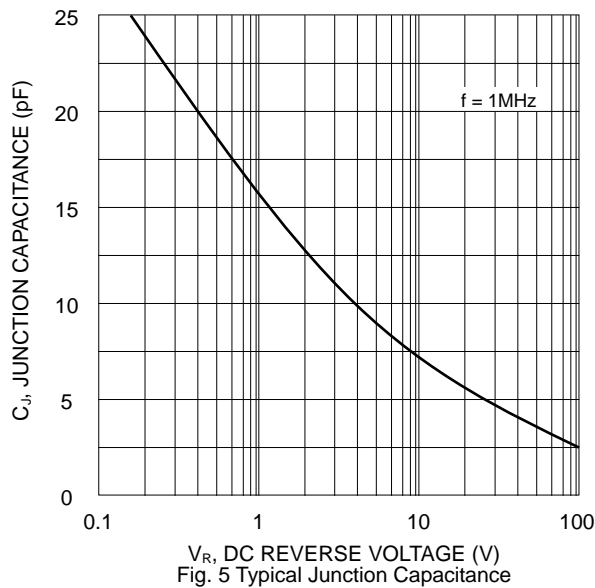
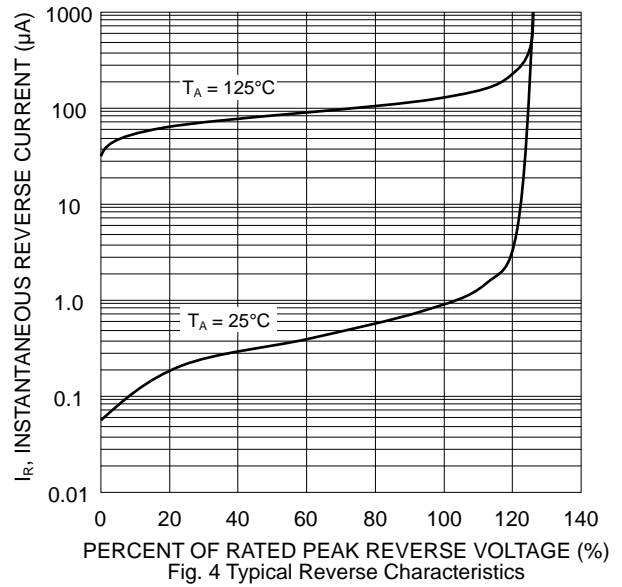
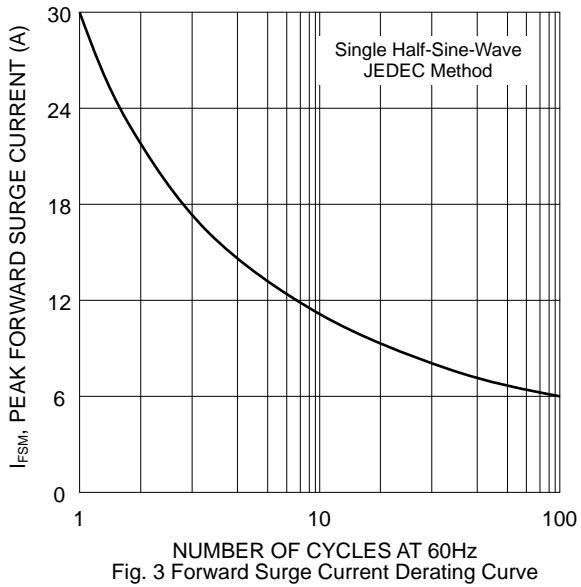
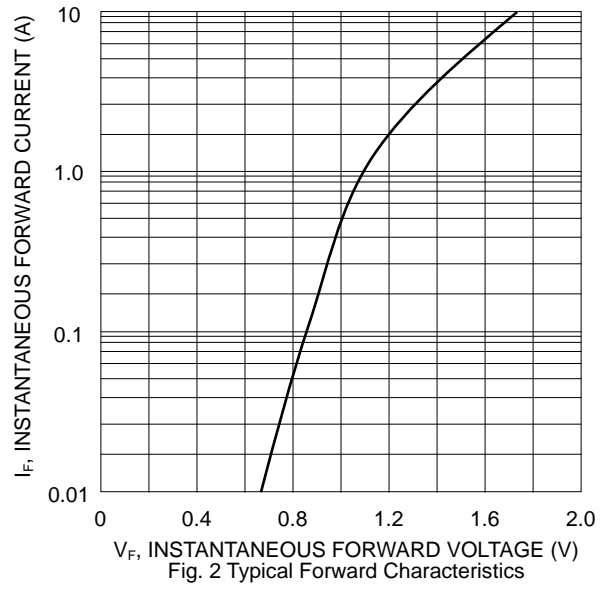
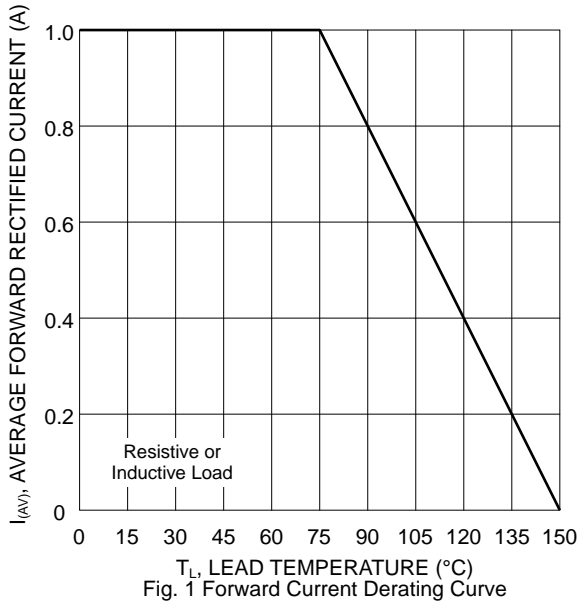


Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	RS 1000FL	RS 1001FL	RS 1002FL	RS 1004FL	RS 1006FL	RS 1008FL	RS 1010FL	Unit
Peak Repetitive Reverse Voltage	V _{RRM}								V
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @T _L = 75°C	I _O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
Forward Voltage @I _F = 1.0A	V _{FM}	1.3							V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}	10 300							μA
Reverse Recovery Time (Note 1)	t _{rr}	150			250		500		nS
Typical Junction Capacitance (Note 2)	C _J	10							pF
Thermal Resistance Junction to Ambient (Note 3)	R _{JA}	325							°C/W
Thermal Resistance Junction to Ambient (Note 4)	R _{JA}	82							
Thermal Resistance Junction to Lead (Note 3)	R _{JL}	26							
Thermal Resistance Junction to Lead (Note 4)	R _{JL}	21							
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

- Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
 3. Mounted on FR-4 P.C. Board with minimum recommended pad size.
 4. Mounted on FR-4 P.C. Board with 700mm² copper pads.

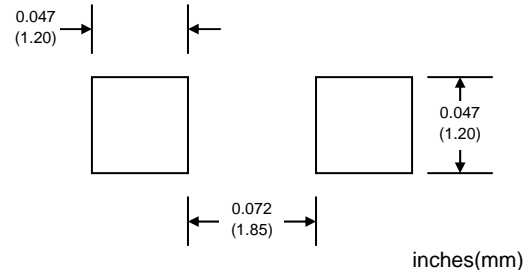


MARKING INFORMATION



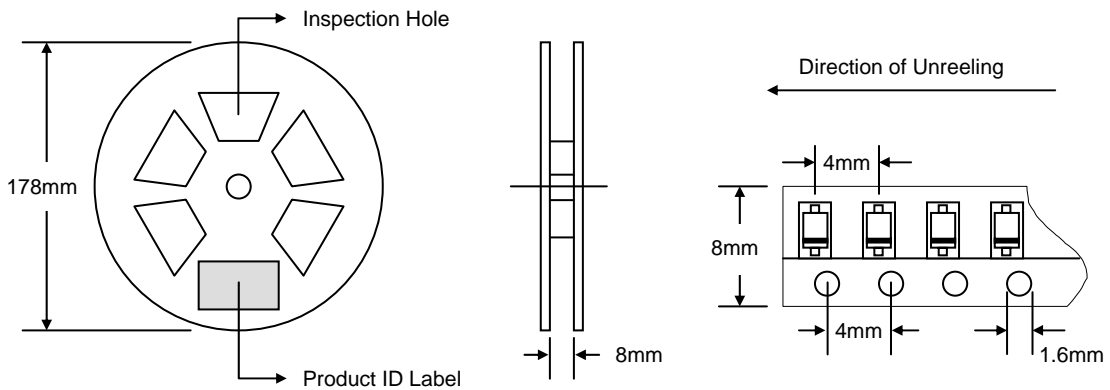
Cathode = Polarity Band
 R1x = Device Code
 x = A (RS1000FL)
 B (RS1001FL)
 D (RS1002FL)
 G (RS1004FL)
 J (RS1006FL)
 K (RS1008FL)
 M (RS1010FL)

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