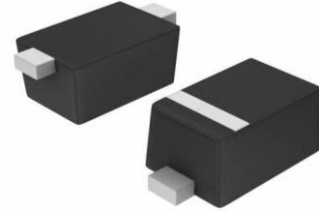


**Surface Mount Schottky Barrier Rectifier**

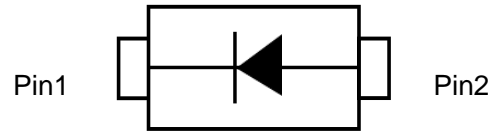
**Features**

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Designed for Surface Mount Application
- Classification 94V-O

**SOD-123FL Surface Mount**



SOD-123FL



**Circuit Diagram**

**Mechanical Date**

- **Case:** SOD-123FL, Molded Plastic
- **Terminals:** Plated Leads Solderable per MIL-STD-202, Method 208
- **Polarity:** Cathode Band
- **Weight:** 0.017 grams (approx.)

**Absolute Maximum Ratings (T<sub>A</sub> = 25°C unless otherwise noted)**

Characteristic	Symbol	SS12 D1F	SS14 D1F	SS16 D1F	SS18 D1F	SS110 D1F	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	40	60	80	100	V
Forward Continuous Current	I <sub>F</sub>	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25					A
Power Dissipation	P <sub>d</sub>	450					mW
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125					°C

**Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)**

Characteristic	Symbol	SS12 D1F	SS14 D1F	SS16 D1F	SS18 D1F	SS110 D1F	UNIT
Forward Voltage Drop @IF = 1.0A	V <sub>FM</sub>	0.45	0.55	0.55	0.70	0.85	V
Peak Reverse Leakage Current @ V <sub>RRM</sub>	I <sub>RM</sub>	500					µA
Typical Junction Capacitance	C <sub>J</sub>	50					pF

**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**

Fig 1. Forward Current Derating Curve

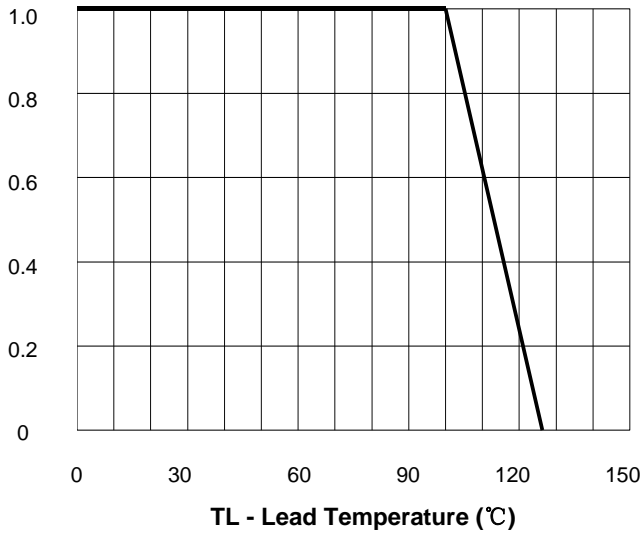


Fig 2. Maximum Non-Repetitive Peak Forward Surge Current

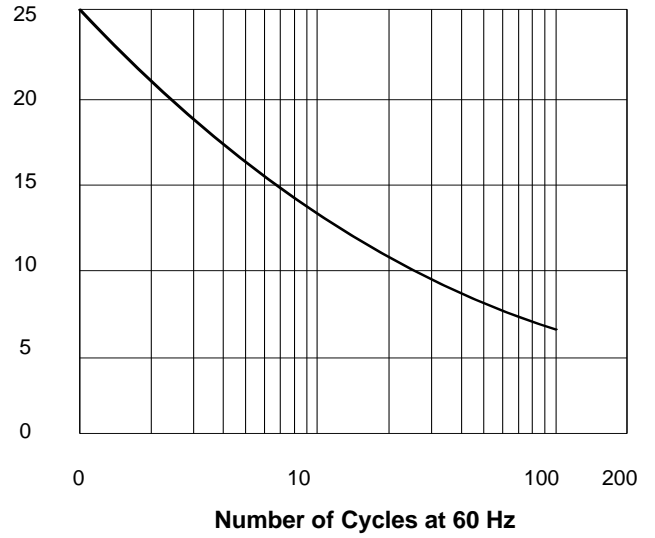


Fig 3. Typical Instantaneous Forward

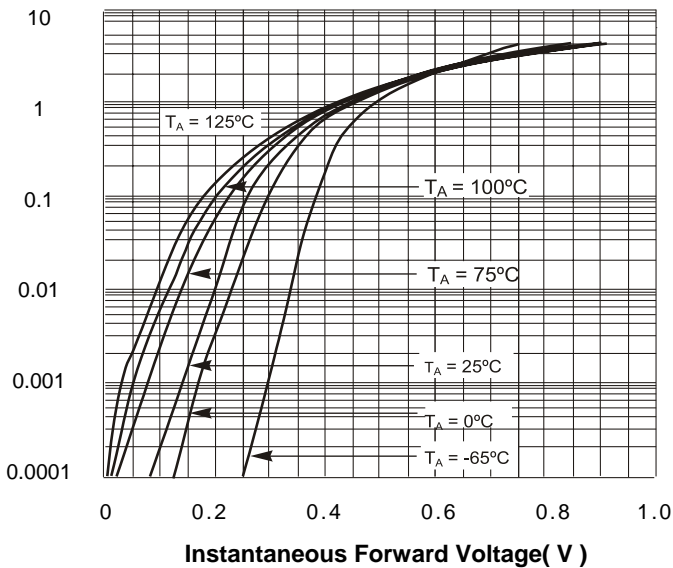
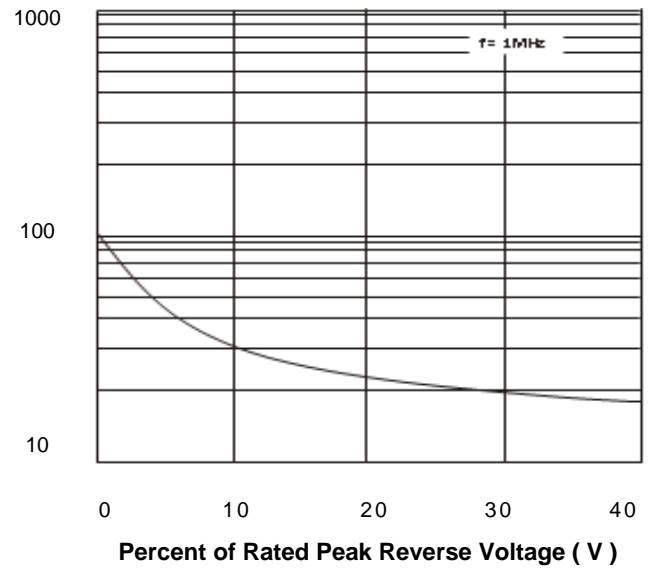
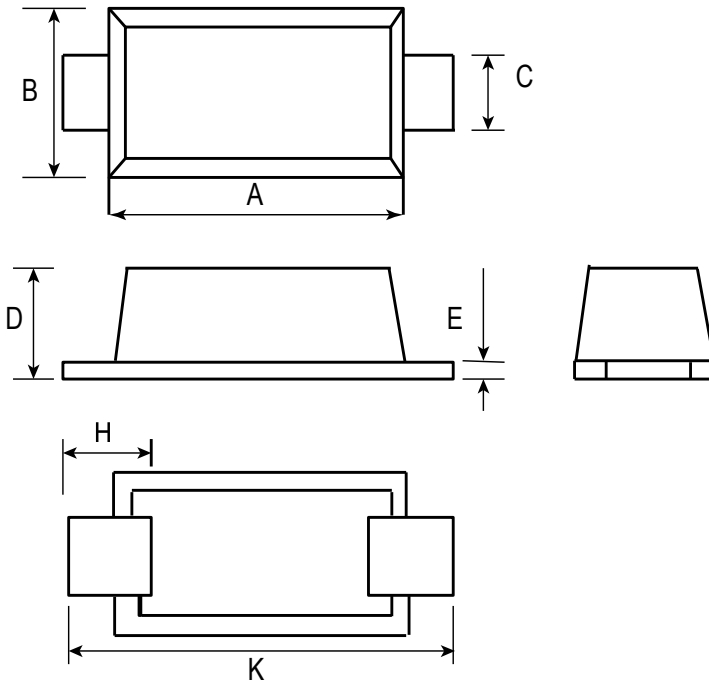


Fig 4. Typical Reverse Leakage Characteristics

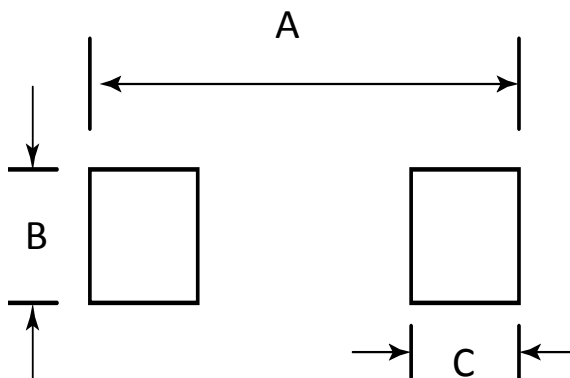


**SOD-123FL Package Outline Drawing**



DIM	Millimeters		
	Min	Nom	Max
A	2.70	2.80	2.90
B	1.80	1.90	2.00
C	0.80	1.00	1.20
D			1.40
E	0.10	0.20	0.30
H	0.35		0.85
K	3.50		3.90

**Suggested Land Pattern**



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	4.19	0.165
B	1.20	0.048
C	0.90	0.036