

SMD Schottky Barrier Rectifier

Features

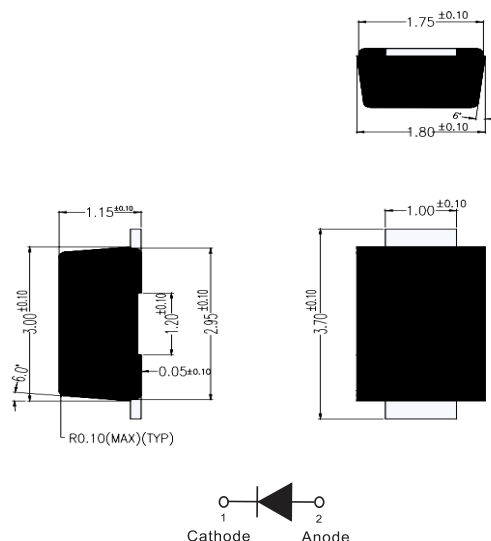
- For surface mounted applications.
- Built-in strain relief, ideal for automated placement.
- Low forward voltage.
- High forward surge current capability.

Mechanical Data

- Case: SOD-123FL, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Polarity symbol marking on body.
- Mounting position: Any.

SOD-123FL

Unit : inch(mm)



Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	SL540FL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current at $T_L=90^{\circ}\text{C}$	$I_F(AV)$	5	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	70	A
Typical thermal resistance	$R_{\theta JA}$ $R_{\theta JL}$	70 20	$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	-55 to +125	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Note: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.4" x 0.4" (10mm x 10mm) copper pad areas.

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Maximum instantaneous forward voltage	at 4.0A	V_F		0.43	0.45	V
	at 5.0A			0.47	0.50	
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25^{\circ}\text{C}$	I_R		20	200	μA
	$T_A = 100^{\circ}\text{C}$			5	50	mA

Rating and Characteristic Curves

Fig.1 - Derating Curve Output Rectified Current

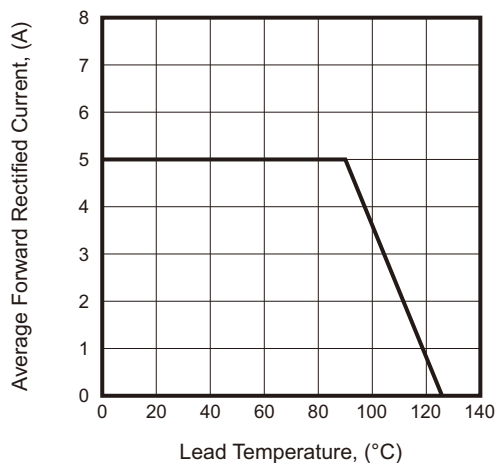


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

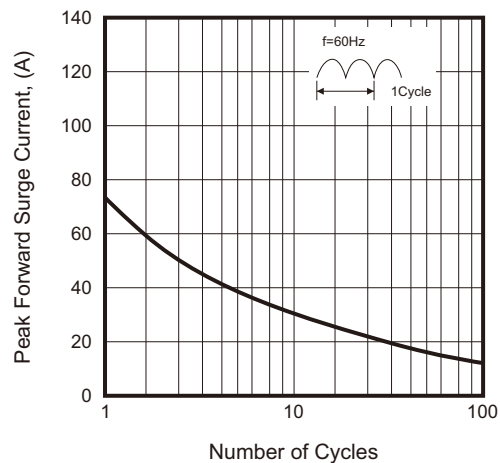


Fig.3 - Typical Forward Voltage Characteristics

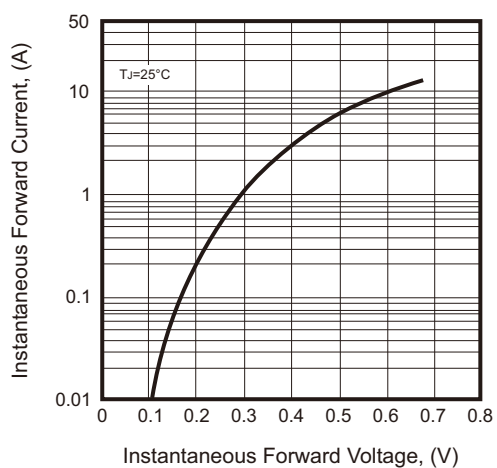


Fig.4 - Typical Reverse Leakage Characteristics

