

Features

- Low power loss, high efficiency
- High surge current capability

Mechanical Data

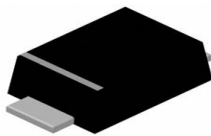
- Case : SOD-123FL Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0006 ounces, 0.017 grams
- Shipping Qty : 3000pcs/7Inch Tape & Reel

Applications

- Low voltage rectification
- Reverse polarity protection
- Low power consumption applications

Dimensions and Pin Configuration

SOD123FL



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

PARAMETER	SYMBOL	Limits	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum Rms Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_R	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2	A
Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I_{FSM}	50	A
Typical Junction Capacitance Measured at 1 MHz And Applied $V_R = 4\text{ V}$	C_J	100	pF
Typical Thermal Resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	200 32	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION		TYP.	MAX.	UNIT
Forward Voltage	V_F	$I_F = 1A$	$T_J = 25^\circ C$	0.41	-	V
		$I_F = 2A$		-	0.5	
		$I_F = 1A$	$T_J = 125^\circ C$	0.32	-	
		$I_F = 2A$		0.41	-	
Reverse Current ^(Note 3)	I_R	$V_R = 10V$	$T_J = 25^\circ C$	2	-	μA
		$V_R = 20V$		3	-	
		$V_R = 30V$		7	-	
		$V_R = 40V$		-	100	
		$V_R = 20V$	$T_J = 125^\circ C$	3	-	mA
		$V_R = 30V$		5	-	
		$V_R = 40V$		6.5	-	

Rating and Characteristic Curves

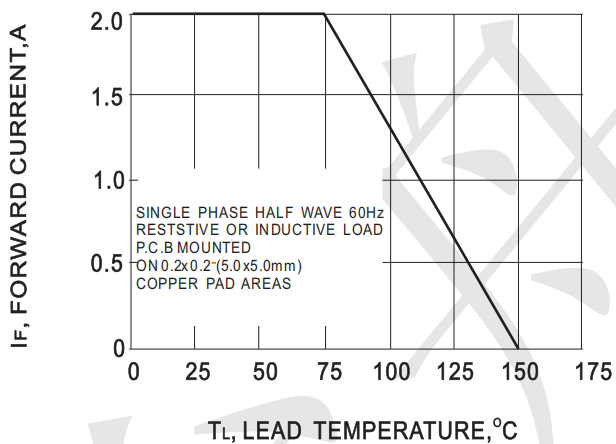


FIG. 1-FORWARD CURRENT DERATING CURVE

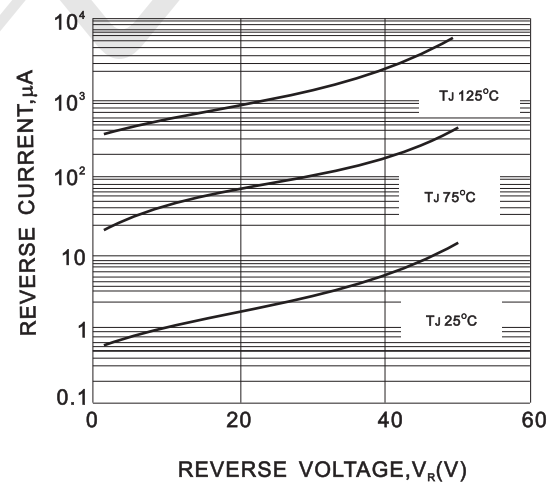


FIG. 2-TYPICAL REVERSE CHARACTERISTIC

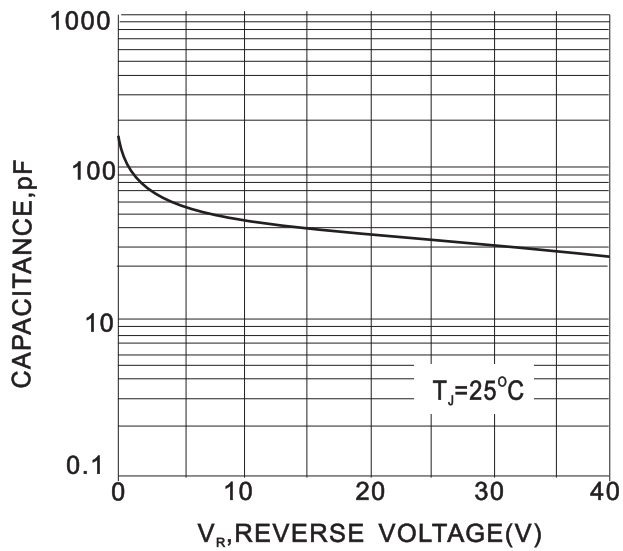


FIG. 3-TYPICAL JUNCTION CHARACTERISTIC

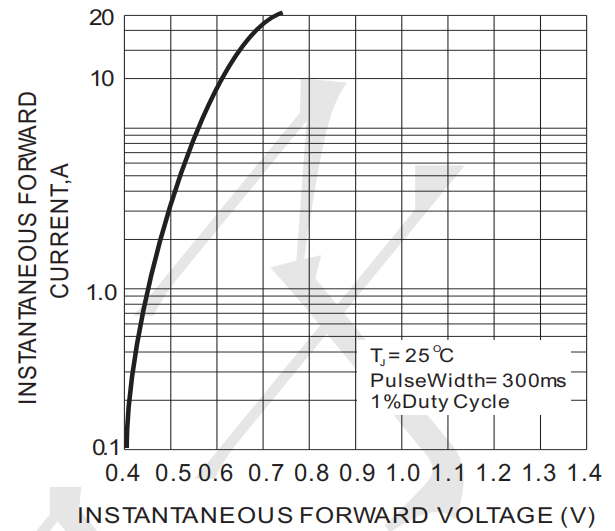


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

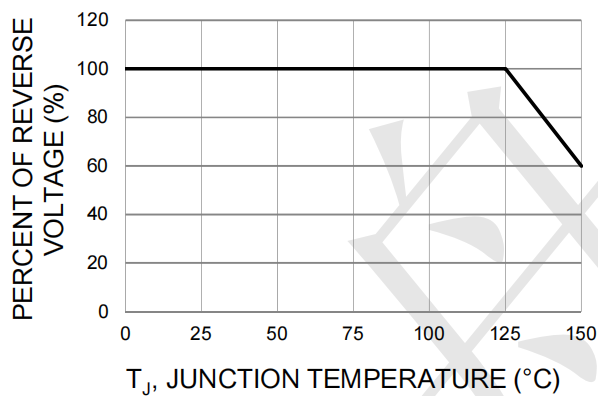
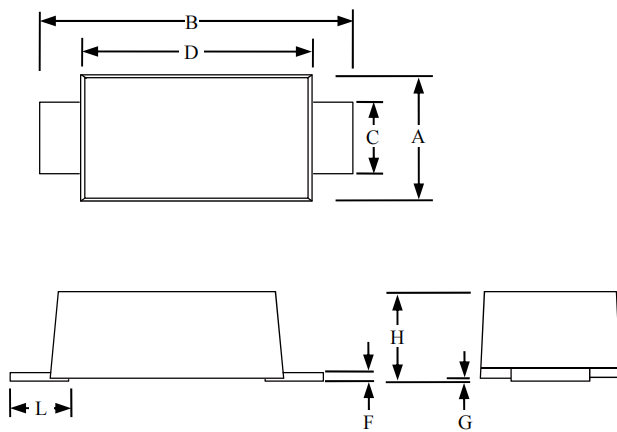


FIG. 5-OPERATING TEMPERATURE DERATING CURVE

Package Outline Dimensions: SOD123FL



SOD-123FL						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.059		0.079	1.5		2
B	0.134		0.154	3.4		3.9
C	0.028		0.047	0.7		1.2
D	0.098		0.114	2.5		2.9
F	0.002		0.01	0.05		0.26
G	-		0.004	-		0.1
H	0.037		0.053	0.95		1.35
L	0.014		0.035	0.35		0.9