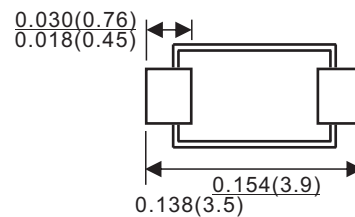
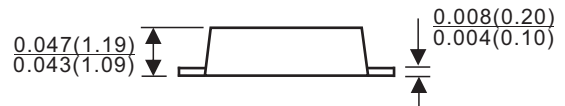
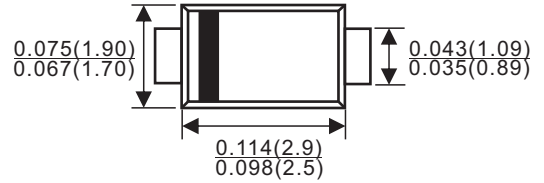




REVERSE VOLTAGE: 20 V
CURRENT: 0.5 A

SOD-123FL



Dimensions in inches and(millimeters)

Features

- ✧ Low profile package
- ✧ For surface mouted applications
- ✧ Idear for automated placement
- ✧ Low power loss,high efficiency
- ✧ High temperature soldering:
250 /10 seconds at terminals

Mechanical Data

- ✧ Case:JEDEC SOD-123FL,molded plastic over passivated chip
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.006 ounces, 0.02 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

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

ABSOLUTE RATINGS

Parameter	Symbol	Value	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	V
Maximum working peak reverse voltage	V_{RWM}	14	V
Maximum DC blocking voltage	V_R	20	V
Maximum average forward rectified current at rated V_R @ $T_L=129$	$I_{(AV)}$	0.5	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_L=25$	I_{FSM}	6.5	A
Typical thermal resistance to ambient (NOTE 1)	$R_{j\theta A}$	200	/W
Typical thermal resistance to lead (NOTE 2)	$R_{j\theta L}$	150	/W
Operating temperature range	T_j	-55---+150	
Storage temperature range	T_{STG}	-55---+150	

NOTES:1.Mounted on PC board FR4 with minimum pad size

2. 1 inch square pad size (1 × 0.5 inch for each lead)on FR4 board.



ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ.	Max.	Unit	
Maximum instantaneous forward voltage (NOTE 3)	V_F	-	-	0.375	V	
@ $I_F=0.1A, T_J=25$		-	-	0.260		
@ $I_F=0.1A, T_J=100$		-	-	0.440		
@ $I_F=0.5A, T_J=25$		-	-	0.360		
Maximum DC reverse current at rated DC blocking voltage (NOTE 4)	I_R	-	-	40	μA	
		@ $V_R=10V, T_J=25$	-	-	3.0	mA
		@ $V_R=10V, T_J=100$	-	-	150	μA
		@ $V_R=20V, T_J=25$	-	-	7.0	mA
@ $V_R=20V, T_J=100$						
Max.junction capacitance	C_T	-	-	110	pF	

NOTES: 3.Pulse tes<300 μ s, duty cycle<2% .
 4. $V_R=5V_{DC}$ (test signal range 100KHz to 1MHz).



Ratings AND Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

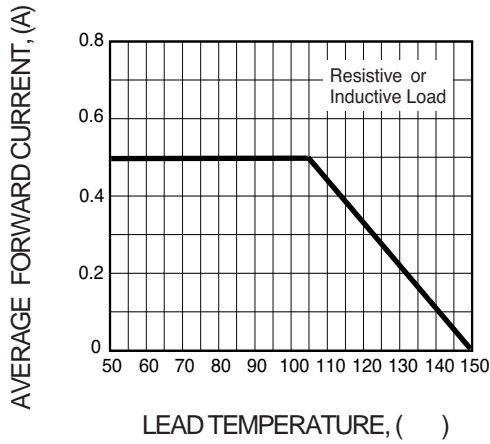


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

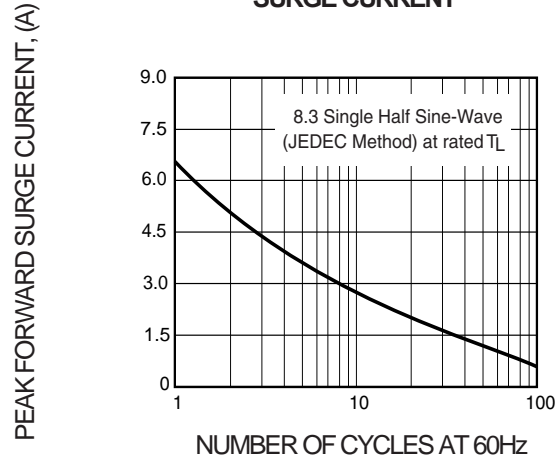


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

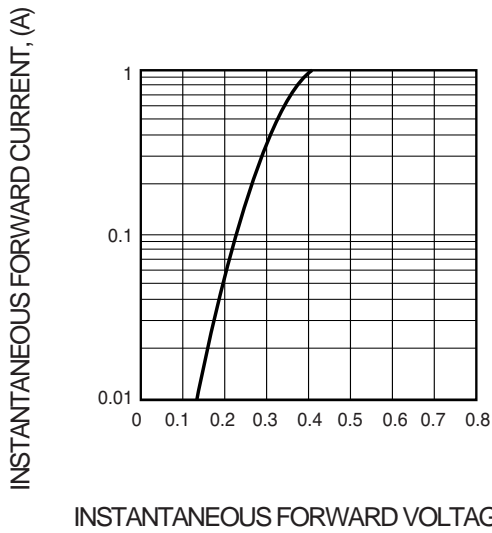


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

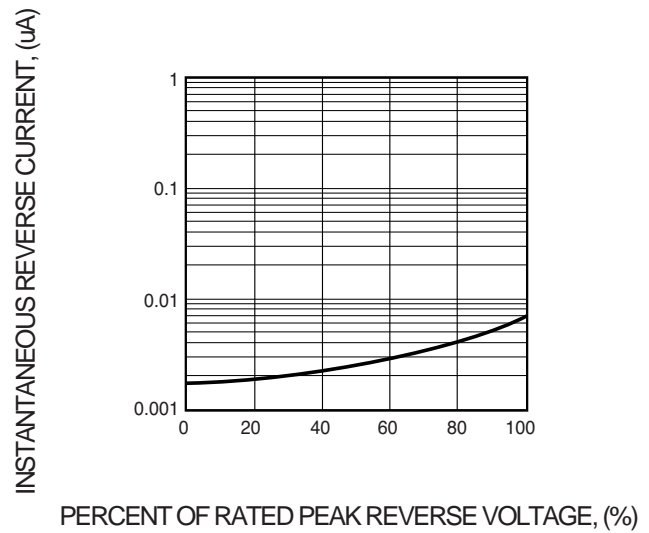
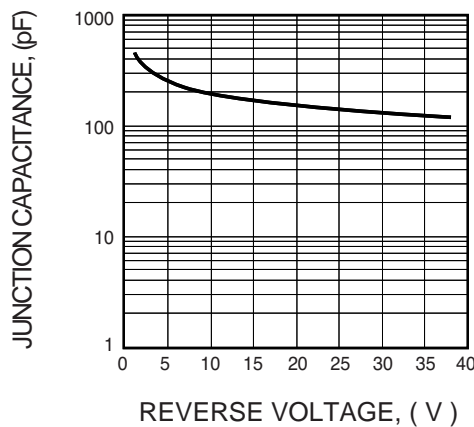


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-123FL	3000/REEL	90000	40X20X22	5.00	4.00