



Surface Mount Rectifiers





SOD-123FL

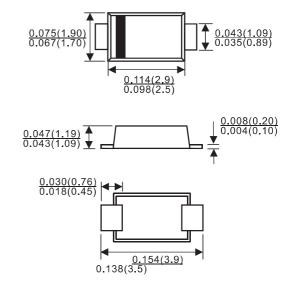


### **Features**

- ♦ Glass passivated device
- ♦ Ideal for surface mouted applications
- ♦ Low leakage current
- ♦ Metallurgically bonded construction
- → High temperature soldering:
   250°C/10 seconds at terminals

### **Mechanical Data**

- Case:JEDEC SOD-123FL,molded plastic over passivated chip
- Terminals:Solder Plated, solderable per MIL-STD-750, Method 2026
- ♦ Polarity: Color band denotes cathode end
- ♦ Weight: 0.0008 ounces, 0.022 gram
- ♦ Mounting position: Any



Dimensions in inches and (millimeters)

### **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

### **ABSOLUTE RATINGS**

		FM 101	FM 102	FM 103	FM 104	FM 105	FM 106	FM 107	UNITS
Device marking code		F1	F2	F3	F4	F5	F6	F7	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forword rectified current @T <sub>A</sub> =75	I <sub>(AV)</sub>	1.0						А	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I <sub>FSM</sub>	20						А	
Maximum instantaneous forward voltage @I <sub>FM</sub> =1.0A (Note 1)	V <sub>F</sub>	1.15						V	
Maximum DC reverse current $@T_A=25$ at rated DC blocking voltage $@T_A=125$	I <sub>R</sub>	10 50						μА	
Maximum reverse recovery time	Trr		1	50		250	500	)	ns
Typical junction capacitance measured at f=1MH <sub>z</sub> ,V <sub>R</sub> =4.0V	CJ	4					рF		
Typical thermal resistance junction to lead	$R_{\theta JL}$	20						/W	
Operating temperature range	Tj	- 55 + 150							
Storage temperature range	T <sub>STG</sub>	- 55 + 150							

NOTE1.Pulse test: pulse width 300µsec,duty cycle 2%.



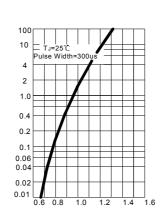
**Surface Mount Rectifiers** 



## **Ratings AND Charactieristic Curves**

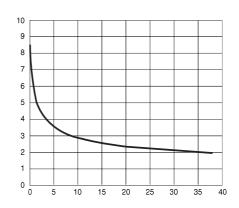
### FIG.1 -TYPICAL FORWARD CHARACTERISTIC

# INSTANTANEOUS FORWARD CURRENT AMPERES



INSTANTANEOUS FORWARD VOLTAGE, V

### FIG.2 - TYPICAL JUNCTION CAPACITANCE

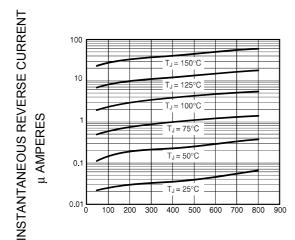


CAPACITANCE, pF

AVERAGE FORWARD CURRENT,

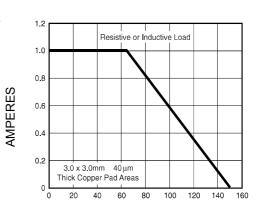
REVERSE VOLTAGE, VOLTS

# FIG.3 -- TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS



INSTANTANEOUS REVERSE VOLTAGE,V

### FIG.4 - FORWARD DERATING CURVE



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

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