

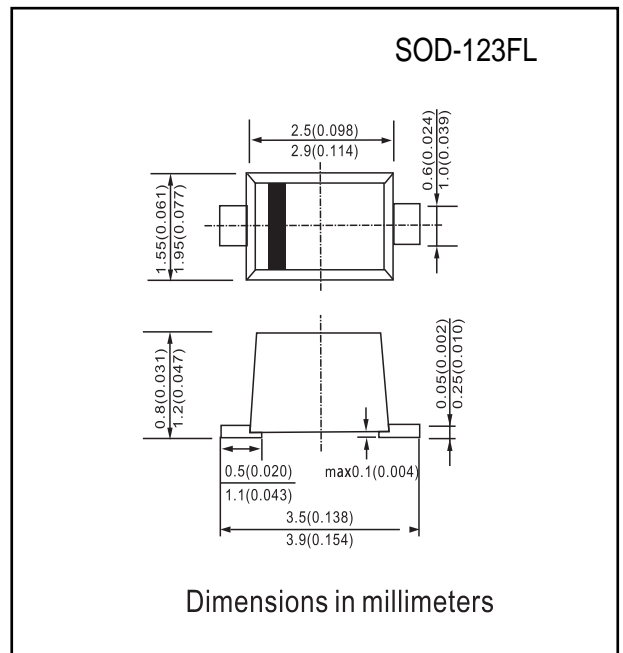


**FEATURES**

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current

**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: 0.006 ounces, 0.02 gram
- Mounting position: Any



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

PARAMETERS	SYMBOL	PART NUMBERS							UNITS	TESTING CONDITIONS
		SM 4001 FL	SM 4002 FL	SM 4003 FL	SM 4004 FL	SM 4005 FL	SM 4006 FL	SM 4007 FL		
Recurrent Reverse Voltage (Max.)	$V_{RRM}$	50	100	200	400	600	800	1000	V	
RMS Voltage (Max.)	$V_{RMS}$	35	70	140	280	420	560	700	V	
DC Blocking Voltage (Max.)	$V_{DC}$	50	100	200	400	600	800	1000	V	
Instantaneous Forward Voltage (Max.) (Note 1)	$V_F$	1.1							V	$I_{FM} = 1.0A$
Average Forward Rectified Current (Max.)	$I_{(AV)}$	1.0							A	$T_A = 75^\circ C$
Peak Forward Surge Current	$I_{FSM}$	25							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)
DC Reverse Current at Rated DC Blocking Voltage (Max.)	$I_R$	5.0							$\mu A$	$T_A = 25^\circ C$
		50								$T_A = 125^\circ C$
Typical Thermal Resistance Junction-Lead	$R_{\theta JL}$	20							$^\circ C / W$	
Typical Junction Capacitance	$C_J$	15							pF	$f = 1MHz, V_R = 4.0V$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 ~ 150							$^\circ C$	

Notes :

1. Pulse test : Pulse width 300  $\mu sec$ , duty cycle 2%.



RATINGS AND CHARACTERISTIC CURVES SM4001FL THRU SM4007FL

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

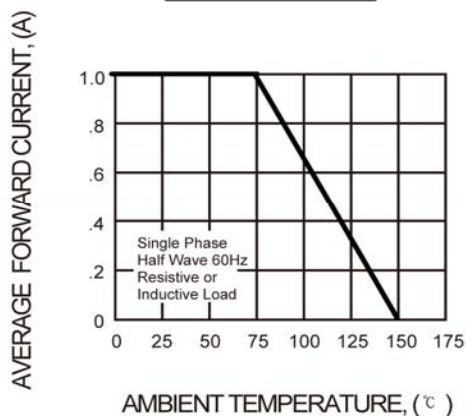


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

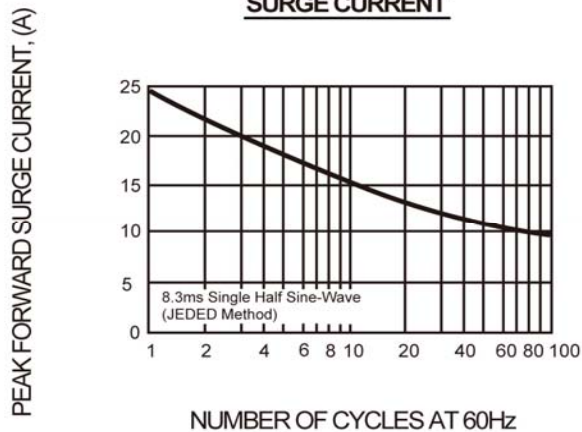


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

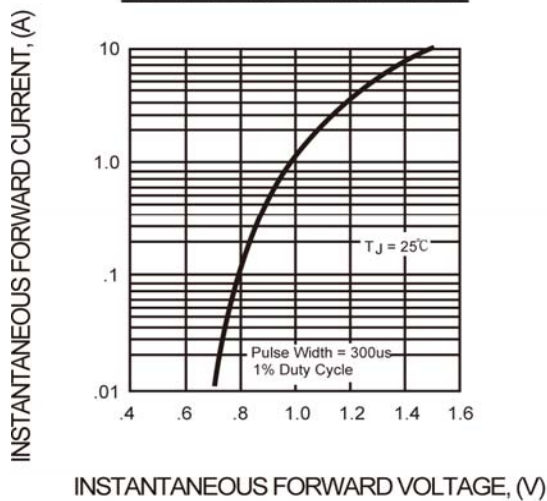


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

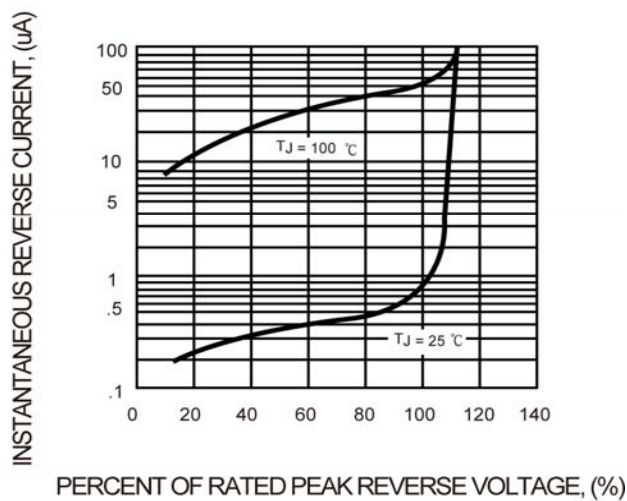


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

