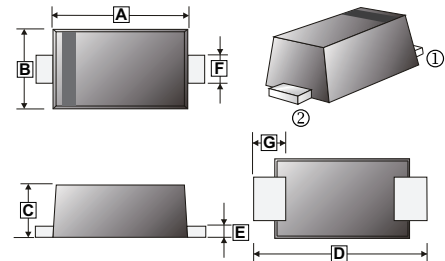


RoHS Compliant Product  
 A suffix of "-C" specifies halogen & lead-free

**FEATURES**

- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current
- Very low profile - typical height of 1.0 mm
- High temperature soldering: 260°C /10 seconds at terminals

**SOD-123FL**



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.60	3.10	E	0.10	0.30
B	1.60	2.00	F	0.80	1.35
C	0.81	1.55	G	0.35	0.85
D	3.50	3.90			

**MARKING**

Product	Marking Code	Product	Marking Code
SUF11FL	E1 / U1	SUF16FL	E6 / U4
SUF12FL	E2 / U2	SUF18FL	E8 / U5
SUF14FL	E4 / U3	-	-

**PACKAGE INFORMATION**

Package	MPQ	Leader Size
SOD-123FL	3K	7 inch

**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, de-rate current by 20%.)

Parameters	Symbol	Part Number					Unit
		SUF11FL	SUF12FL	SUF14FL	SUF16FL	SUF18FL	
Maximum Recurrent Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Instantaneous Forward Voltage @ $I_F=1A$	$V_F$	0.95			1.3	1.7	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30					A
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>1</sup>	$T_A=25^\circ C$	5					$\mu A$
	$T_A=125^\circ C$	100					
Maximum Reverse Recovery Time <sup>2</sup>	$T_{RR}$	35					ns
Typical Junction Capacitance <sup>3</sup>	$C_J$	0.75					pF
Typical thermal resistance <sup>4</sup>	$R_{\theta JA}$	66					$^\circ C/W$
	$R_{\theta JC}$	32					
Operation and Storage Temperature Range	$T_J, T_{STG}$	-55~150					$^\circ C$

Notes:

1. Pulse Test: Pulse Width 300us, Duty Cycle  $\leq 1.0\%$ .
2. Measured with  $I_F=0.5A, I_R=1A, I_{RR}=0.25A$ .
3. Measured at 1MHz and applied reverse voltage of 4 V D.C.
4. P.C.B. mounted with 10x10x0.2 mm copper pad areas.

**RATINGS AND CHARACTERISTIC CURVES**

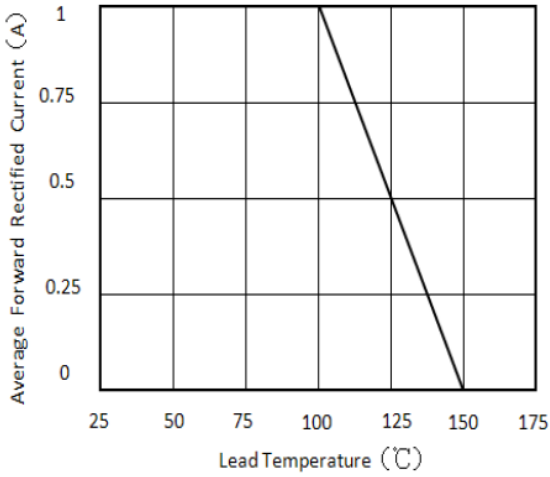


Figure 1. Forward Current Derating Curve

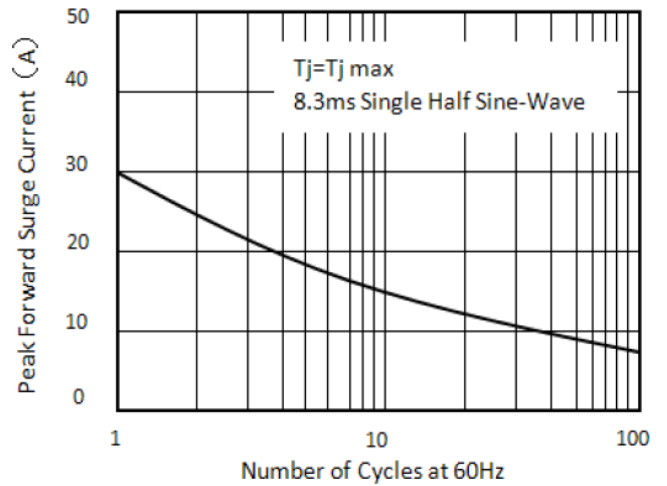


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

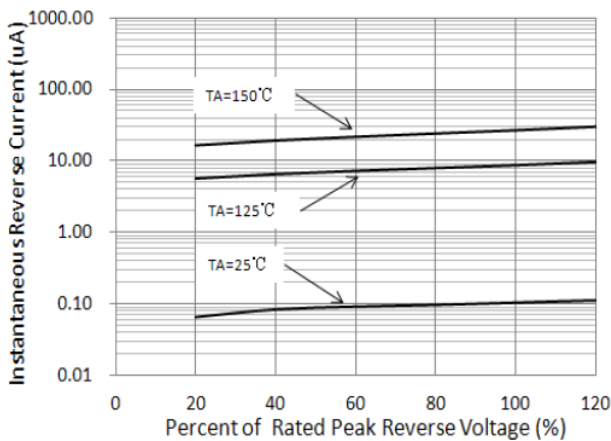


Figure 3. Typical Reverse Characteristics

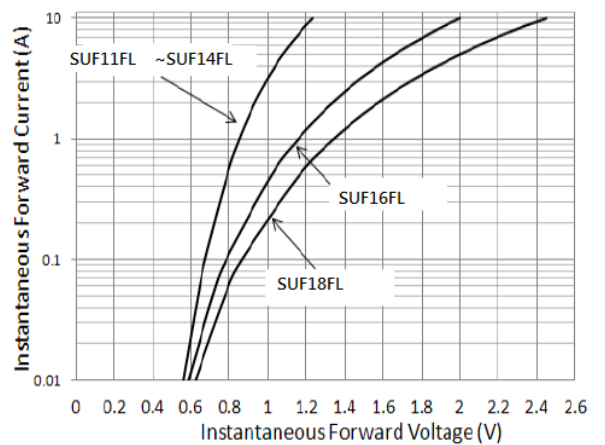


Figure 4. Typical Instantaneous Forward Characteristics

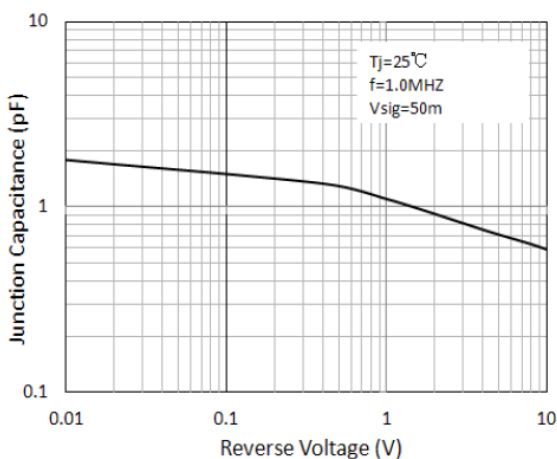


Figure 5. Typical Junction Capacitance