

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

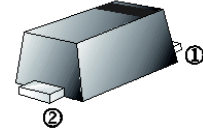
FEATURES

- Low forward surge current
- Ideal for surface mounted applications

SOD-123FL

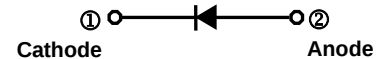
MECHANICAL DATA

- 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
- Mounting position: Any



MARKING

Product	Marking Code	Product	Marking Code
SM120FL-C	C2 / S12 / D12U	SM1100FL-C	CA / S110 / D110U
SM140FL-C	C4 / S14 / D14U	SM1150FL-C	CB / S115 / D115U
SM160FL-C	C6 / S16 / D16U	SM1200FL-C	CC / S120 / D120U
SM180FL-C	C8 / S18 / D18U	-	-



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%.)

Parameter	Symbol	Part Number							Unit
		SM120 FL-C	SM140 FL-C	SM160 FL-C	SM180 FL-C	SM1100 FL-C	SM1150 FL-C	SM1200 FL-C	
Maximum Recurrent Reverse Voltage	V _{RRM}	20	40	60	80	100	150	200	V
Maximum RMS Voltage	V _{RMS}	14	28	42	56	70	105	140	
Maximum DC Blocking Voltage	V _{DC}	20	40	60	80	100	150	200	
Maximum Instantaneous Forward Voltage @I _F =1A	V _F	0.5		0.67	0.82		0.9		V
Average Forward Rectified Current	I _F	1							A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	T _J =25°C	I _{FSM}	30						A
	T _J =125°C		24						
Maximum DC Reverse Current @DC Blocking Voltage	T _J =25°C	I _R	0.1		0.05				mA
	T _J =100°C		10		5				
Typical Junction Capacitance ¹	C _J	55		45	34		20		pF
Typical Thermal Resistance	R _{θJA}	115							°C/ W
	R _{θJL}	18							
	R _{θJC}	10							
Operating & Storage Temperature Range	T _J , T _{STG}	-55~150							°C

Note :

1. Measured at 1MHZ and applied reverse of 4V D.C.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

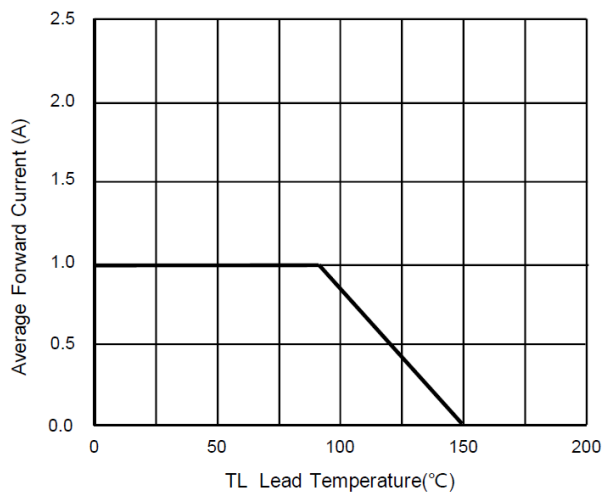


Fig. 2 Typical Forward Characteristics

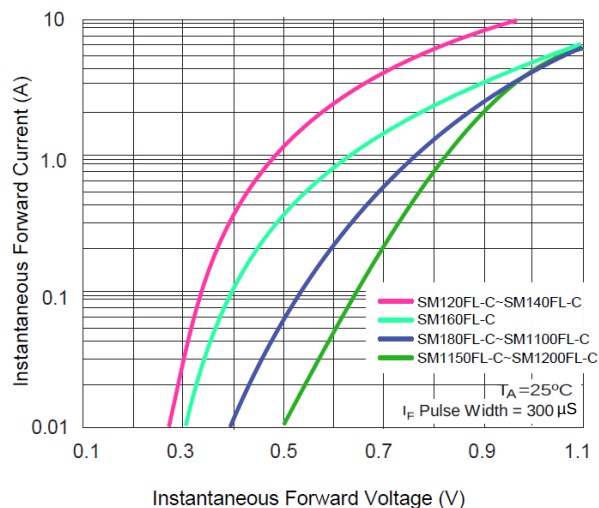


Fig. 3 Forward Surge Current Capability

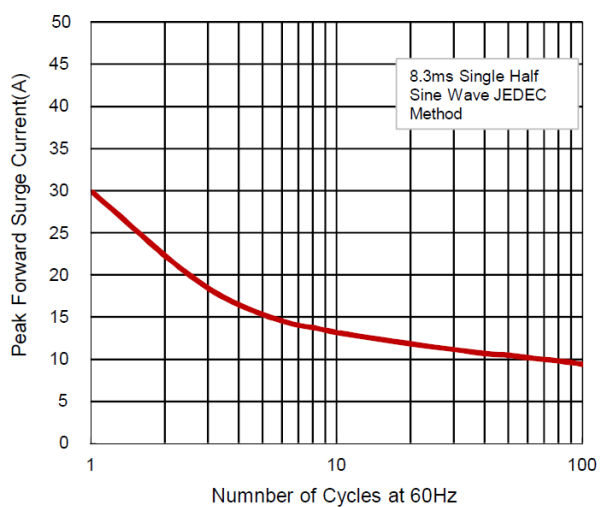
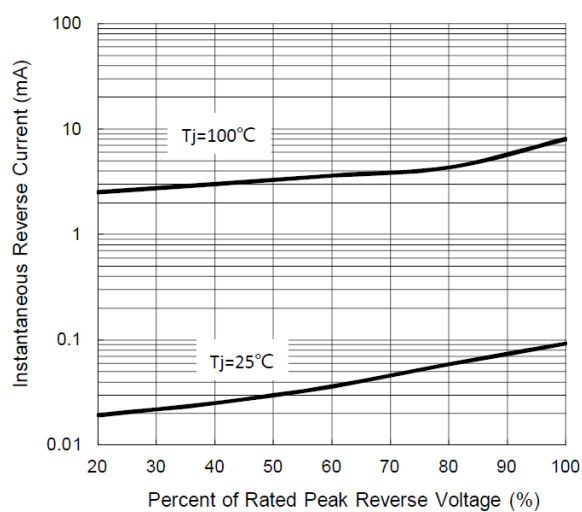
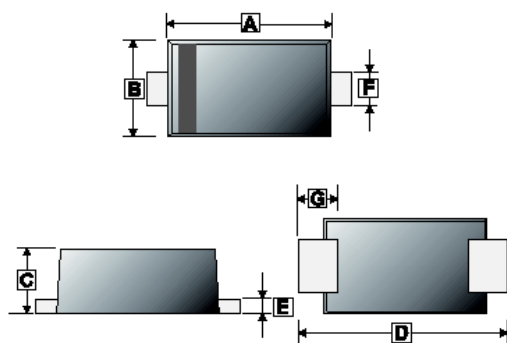


Fig.4 Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

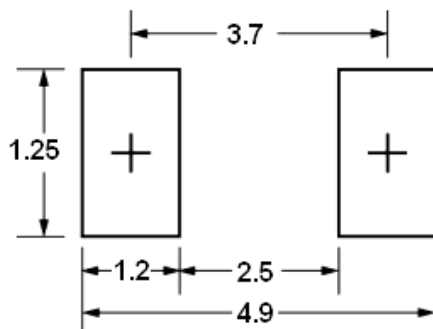
SOD-123FL



REF.	Millimeter	
	Min.	Max.
A	2.40	3.10
B	1.40	2.10
C	0.80	1.55
D	3.30	4.00
E	0.05	0.30
F	0.50	1.35
G	0.80 TYP.	

MOUNTING PAD LAYOUT

SOD-123FL



*Dimensions in millimeters