

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

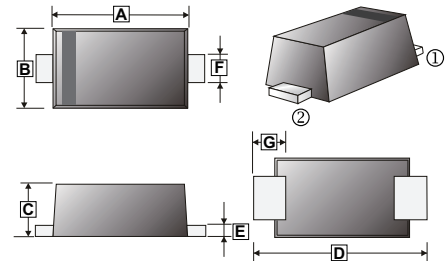
FEATURES

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

MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Moisture sensitivity: level 1, per J-STD-020
- Polarity: Color band denotes cathode end
- Weight: 0.006 ounces, 0.02 gram
- Mounting position: Any

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

F15M

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	Rating	Unit
Maximum Recurrent Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Instantaneous Forward Voltage @ $I_{FM}=1.5A$	V_F	1.1	V
Average Forward Rectified Current	$I_{(AV)}$	1.5	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	52	A
Maximum DC Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ C$	5	μA
	$T_A=125^\circ C$	50	
Typical Junction Capacitance ²	C_J	6	pF
Typical Thermal Resistance Junction-Ambient ³	$R_{\theta JA}$	70	°C / W
Typical Thermal Resistance Junction-Case ³	$R_{\theta JC}$	35	
Typical Thermal Resistance Junction-Mount ³	$R_{\theta JM}$	14	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 ~ 150	°C

Notes :

1. Pulse test : Pulse width 300 μs , duty cycle 2%.
2. $f=1MHz, V_R=4.0V$
3. The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB

RATINGS AND CHARACTERISTIC CURVES

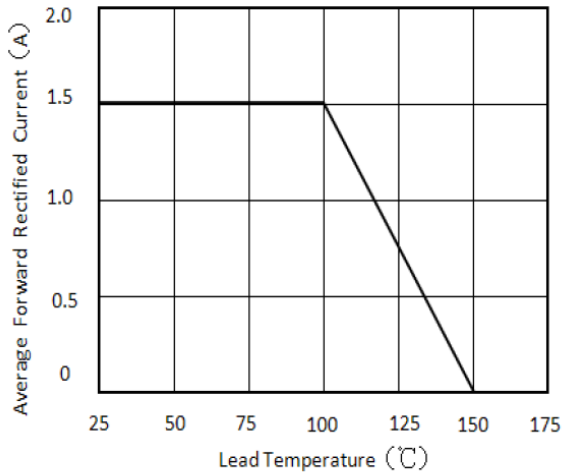


Figure 1. Forward Current Derating Curve

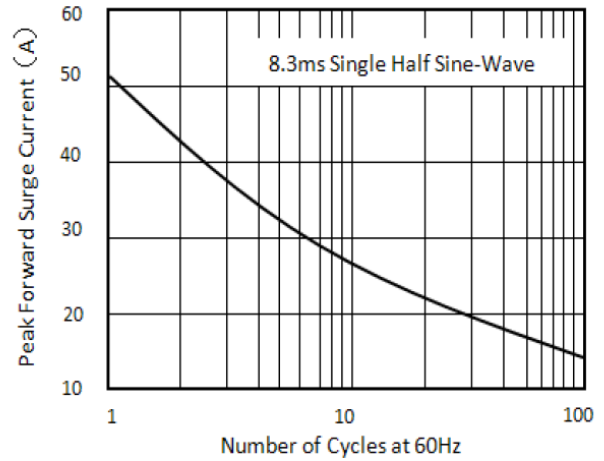


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

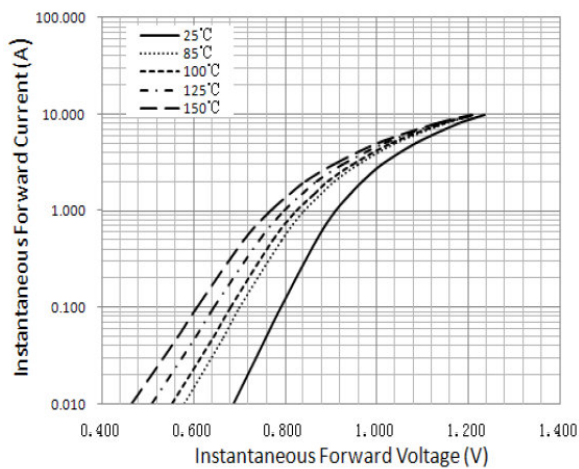


Figure 3. Typical Instantaneous Forward Characteristics

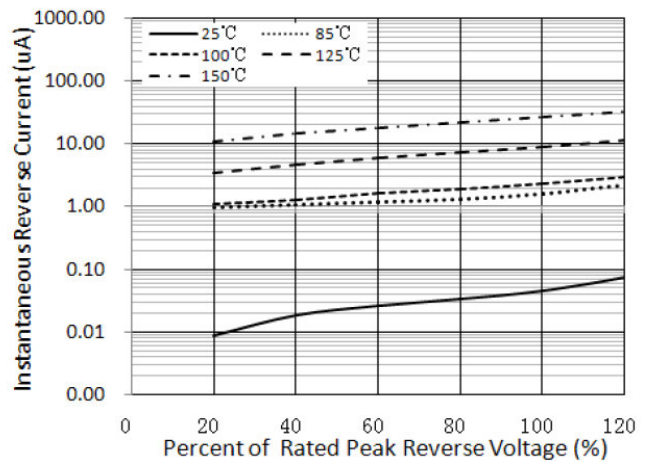


Figure 4. Typical Reverse Characteristics