

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

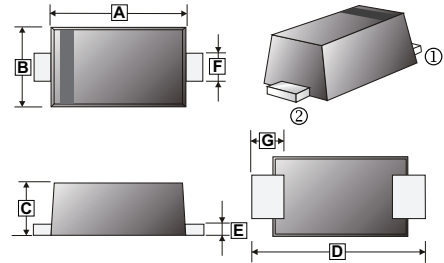
## FEATURES

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Low Forward Voltage

## PACKAGE INFORMATION

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

### SOD-123FL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.60	3.10	E	0.05	0.30
B	1.60	2.00	F	0.80	2.0
C	0.81	1.55	G	0.8 (Typ.)	
D	3.50	3.90			

## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Reverse Voltage	V <sub>RRM</sub>	40	V
Maximum RMS Voltage	V <sub>RMS</sub>	28	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	V
Maximum Average Forward Rectified Current @ T <sub>J</sub> =25°C	I <sub>F</sub>	2	A
Peak Forward Surge Current @ 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	40	A
Typical Junction Capacitance @ f=1MHz, V <sub>R</sub> =4V	C <sub>J</sub>	250	pF
Typical Thermal Resistance from Junction to Ambient <sup>1</sup>	R <sub>θJA</sub>	80	°C/ W
Typical Thermal Resistance from Junction to Lead <sup>1</sup>	R <sub>θJL</sub>	25	°C/ W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	125, -55~150	°C

Notes :

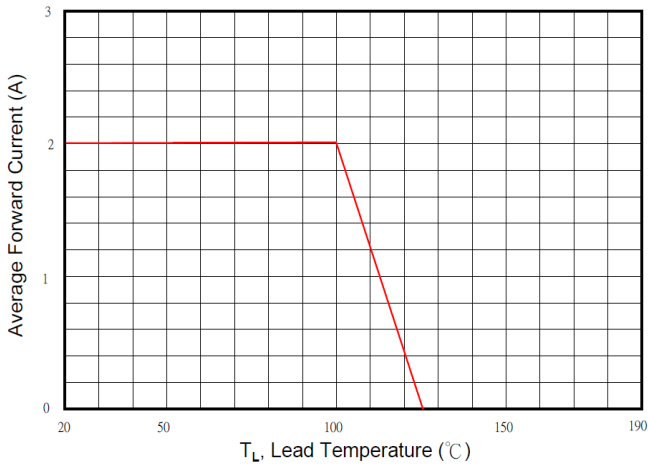
1. FR-4 PCB, 2oz. 0.7 mm x1.2 mm copper pad.

## ELECTRICAL CHARACTERISTICS

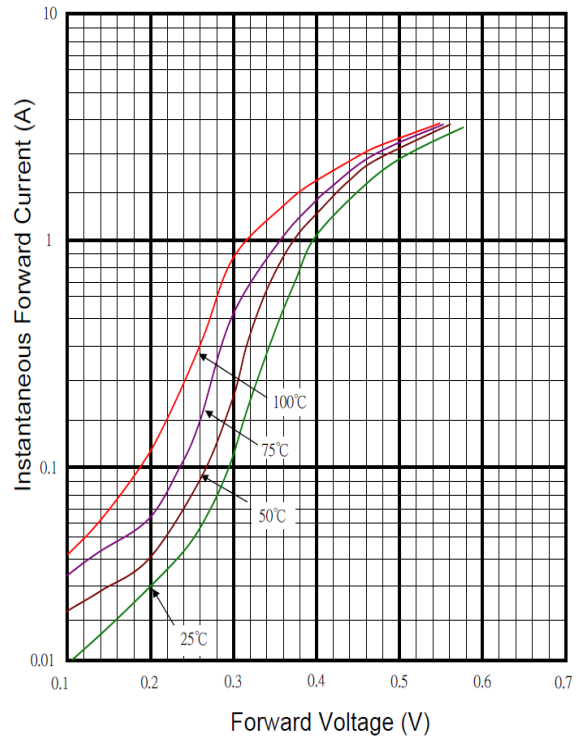
Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Forward Voltage Drop	V <sub>FM</sub>	0.45	0.49	V	I <sub>F</sub> =2A, T <sub>J</sub> =25°C
		0.4	-		I <sub>F</sub> =2A, T <sub>J</sub> =125°C
Peak Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	-	0.1	mA	T <sub>J</sub> =25°C
		-	10		T <sub>J</sub> =100°C

**CHARACTERISTIC CURVES**

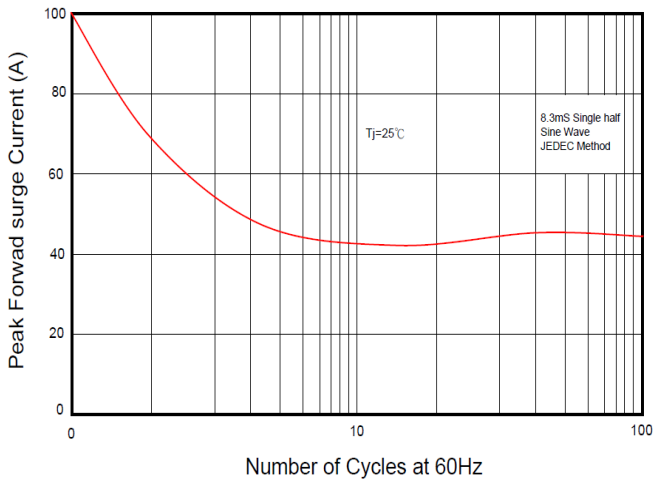
Typical Forward Current Derating Curve



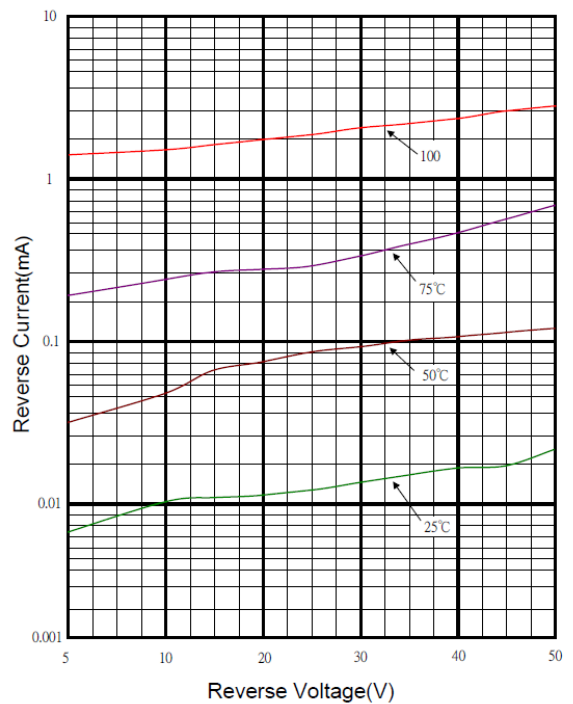
Typical Forward Characteristic



Maximum Non- Repetitive Forward Surge Current



Typical Reverse Characteristic



Typical Junction Capacitance

