

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

## FEATURES

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

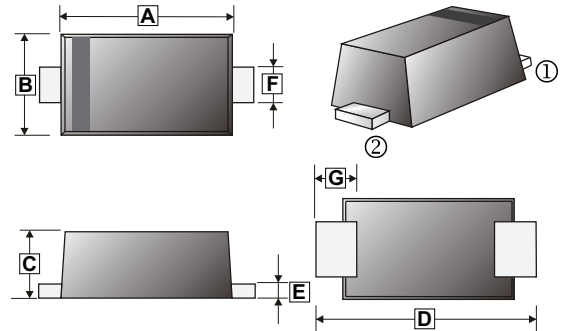
## MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- 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
SM220FL	2S	SM260FL	6S
SM230FL	3S	SM280FL	8S
SM240FL	4S	SM2100FL	AS

## SOD-123FL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	2.90	E	0.10	0.30
B	1.80	2.00	F	0.80	1.20
C	1.55	1.25	G	0.35	0.85
D	3.50	3.90			

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123FL	2.5K	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
		SM 220FL	SM 230FL	SM 240FL	SM 260FL	SM 280FL	SM 2100FL	
Maximum Recurrent Reverse Voltage	$V_{RRM}$	20	30	40	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	42	56	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	60	80	100	V
Maximum Instantaneous Forward Voltage @ $I_{FM} = 2.0A$	$V_F$	0.50	0.55		0.72	0.85		V
Maximum Average Forward Rectified Current @ $T_J = 90^\circ C$	$I_{(AV)}$	2.0						A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	40						A
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.3						mA
Typical Junction Capacitance	$C_J$	30						pF
Operating Temperature Range	$T_J$	-55~125						°C
Storage Temperature Range	$T_{STG}$	-55~150						°C

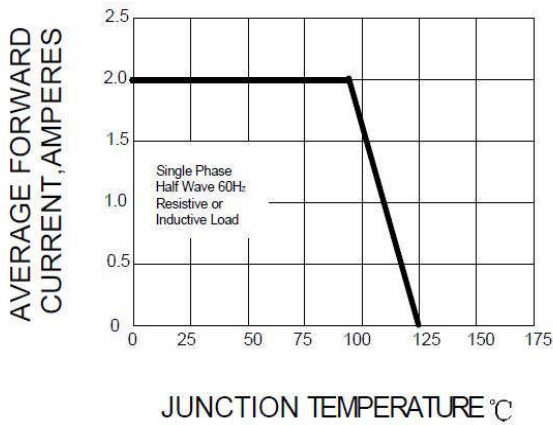
Notes: <http://www.secos.com/>

1. Measured at  $f=1.0MHz$ ,  $V_R=4.0V$

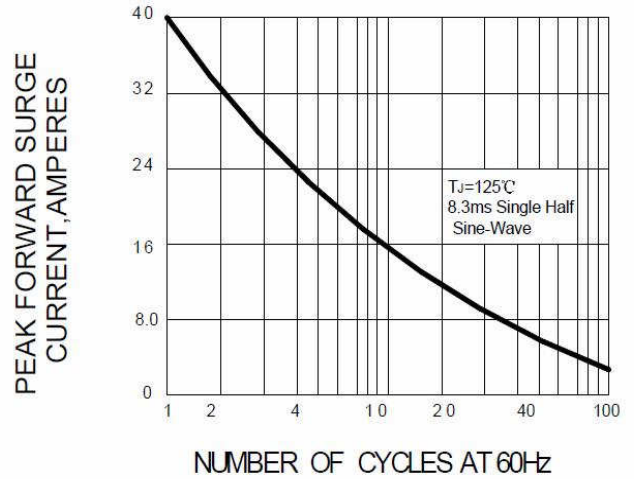
Any changes of specification will not be informed individually.

**CHARACTERISTIC CURVES**

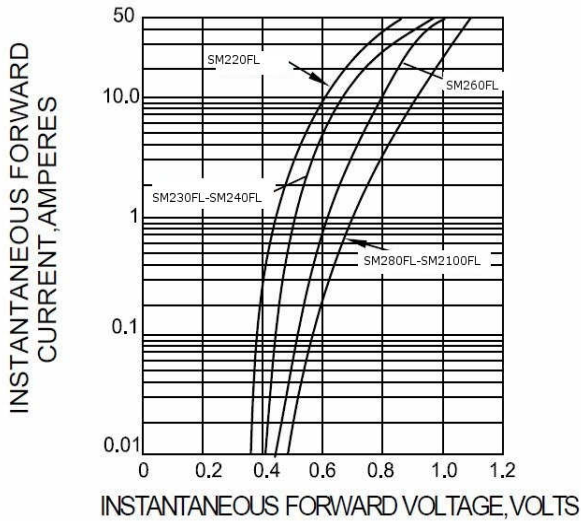
**FIG.1 – FORWARD DERATING CURVE**



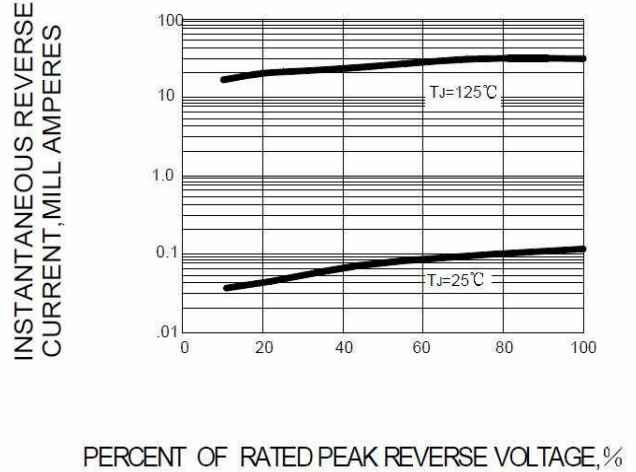
**FIG.2– PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5–TYPICAL JUNCTION CAPACITANCE**

