

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

FEATURES

- Low profile package
- For surface mounted applications
- Ideal for automated placement
- Low power loss, high efficiency
- High temperature soldering :
250°C / 10 seconds at terminals

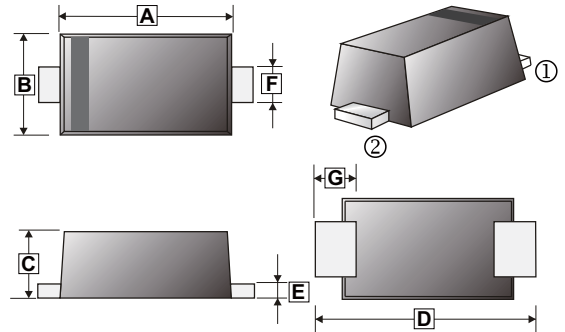
MECHANICAL DATA

- 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
- Weight: 0.003 ounces, 0.01 gram

MARKING

Product	Marking Code
SM0530FL	B3

SOD-123FL



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

PACKAGE INFORMATION

Package	MPQ	LeaderSize
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, derate current by 20%.

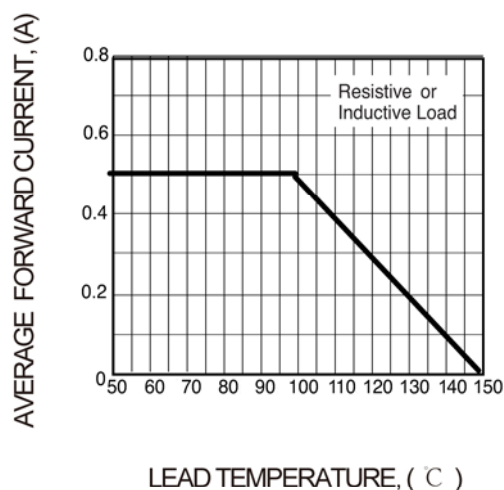
PARAMETERS	SYMBOL	VALUE	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Maximum working peak reverse voltage	V_{RWM}	30	V
Maximum DC blocking voltage	V_R	30	V
Maximum average forward rectified current at rated V_R @ $T_L = 100^\circ\text{C}$	$I_{(AV)}$	0.5	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	5.5	A
Maximum instantaneous forward voltage $I_F=0.1\text{A}, T_J=25^\circ\text{C}$ $I_F=0.5\text{A}, T_J=25^\circ\text{C}$	V_F	0.375	V
		0.43	
Maximum DC reverse current at rated DC blocking voltage Rated dc voltage, $T_C=25^\circ\text{C}$ $V_R=15\text{V}, T_C=25^\circ\text{C}$	I_R	130	μA
		20	
Typical thermal resistance to ambient (NOTE 1)	$R_{\theta JA}$	200	$^\circ\text{C} / \text{W}$
Typical thermal resistance to lead	$R_{\theta JL}$	25	$^\circ\text{C} / \text{W}$
Operating Temperature Range	T_J	-55 ~ 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ 150	$^\circ\text{C}$

NOTES : 1. Mounted on epoxy substrate with 3 x 3 mm CU pads ($\geq 40 \mu\text{m}$ thick).

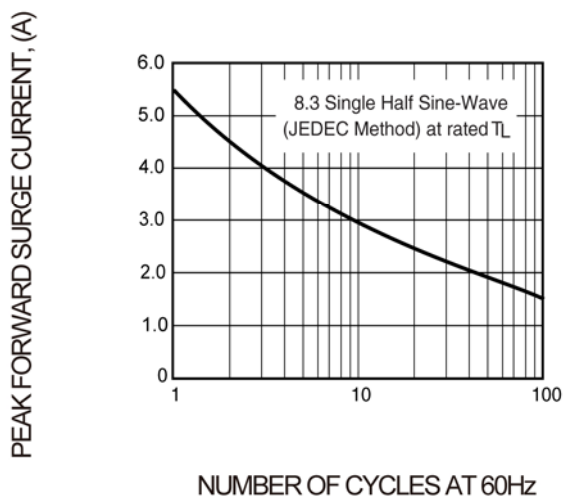
2. Mounted with minimum recommended pad size, PC Board FR4.

RATINGS AND CHARACTERISTIC CURVES (SM0530FL)

**FIG. 1 - TYPICAL FORWARD CURRENT
DERATING CURVE**



**FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT**



**FIG. 3 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS**

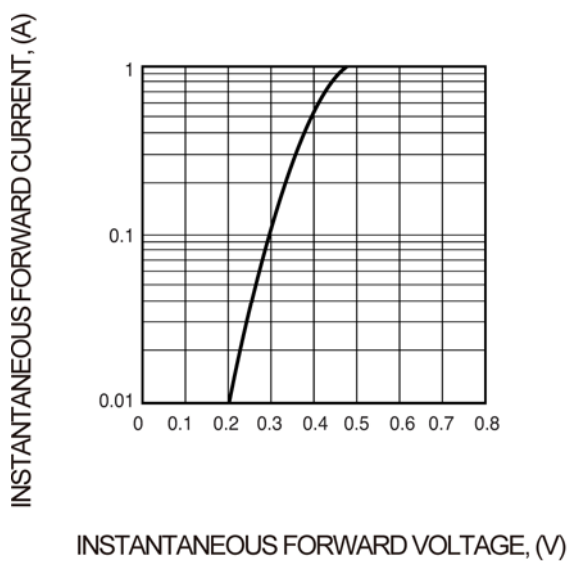


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

