

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

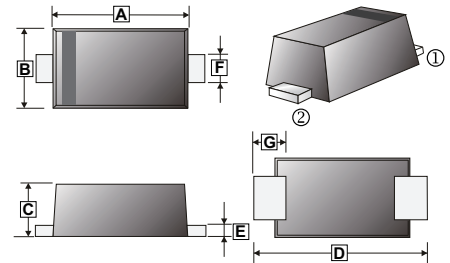
## FEATURES

- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability
- Glass passivated chip

## MECHANICAL DATA

- Case: SOD-123FL
- Epoxy: UL 94V-0 rate flame retardant  
Terminals: Solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight: 0.064 gram

## SOD-123FL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.4	3.10	E	0.05	0.30
B	1.55	2.00	F	0.80	1.35
C	0.80	1.55	G	0.8 (Typ.)	
D	3.3	3.90			

## 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 Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Maximum RMS Voltage	$V_{RMS}$	140	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current.375"(9.5mm) Lead Length at $T_A=55^\circ\text{C}$	$I_F$	1	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30	A
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	0.92	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ\text{C}$	5
		$T_A=100^\circ\text{C}$	100
Maximum Reverse Recovery Time <sup>1</sup>	$T_{RR}$	15	nS
Thermal Resistance Junction to Ambient <sup>2</sup>	$R_{\theta JA}$	85	°C/W
Thermal Resistance Junction to Lead <sup>2</sup>	$R_{\theta JL}$	25	
Typical Junction Capacitance <sup>3</sup>	$C_J$	15	pF
Operating & Storage Temperature	$T_J, T_{STG}$	-55~150	°C

Notes:

1. Reverse Recovery Time test condition :  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .
2. Mounted with 1 inch<sup>2</sup> copper pad size 10Z FR4 board.
3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

FIG.1 - FORWARD CURRENT DERATING CURVE

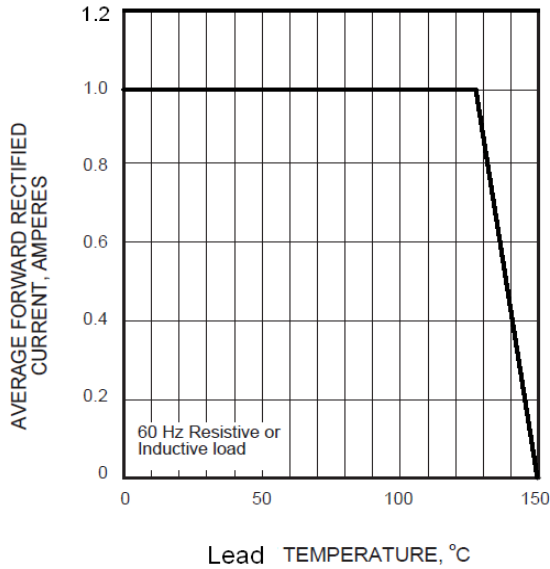


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

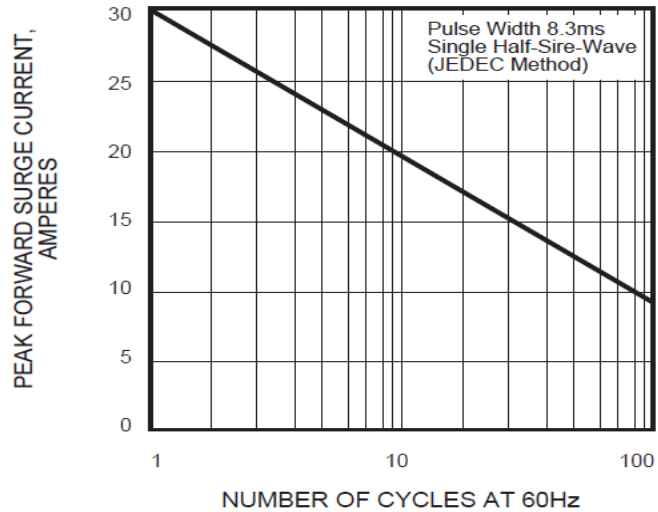


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

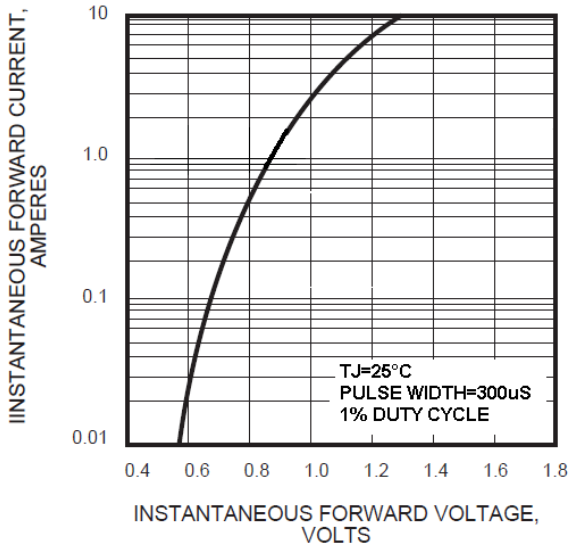


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

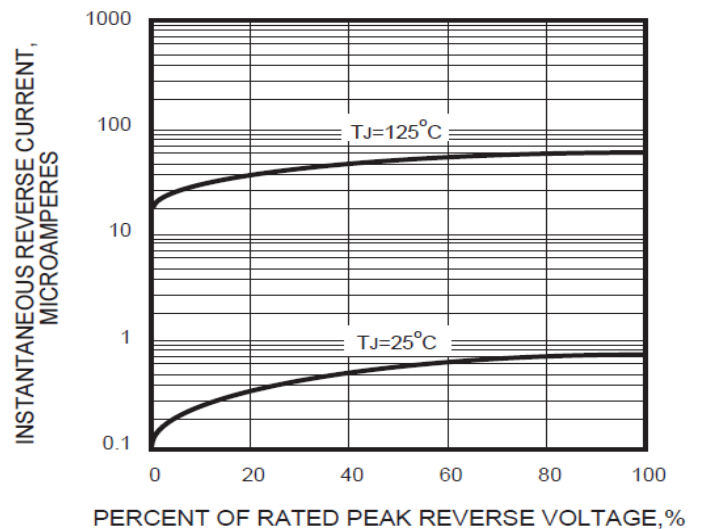


FIG.5 - TYPICAL JUNCTION CAPACITANCE

