

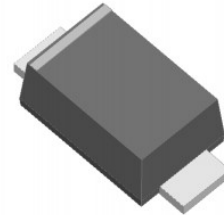
FEATURES AND BENEFITS

- Low profile package
- Glass passivated chip junction
- Switching for general purpose
- High forward surge capability
- Excellent High Temperature Stability

MECHANICAL DATA

- Epoxy: UL94 V-0 rated flame retardant
- Case: SOD-123FL Package
- Terminals: Tin plated leads,solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Primary Characteristic	
I_O	1A
V_{RRM}	600V
I_{FSM}	30A
V_F Typical=1A, $T_J=25^\circ C$	1.7V
T_{Jmax}	150°C



MAXIMUM RATINGS

Characteristic	Symbol	E1J	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	420	V
Average Rectifier Forward Current Total Device (Rated V_R), $T = 100^\circ C$	$I_{F(AV)}$	1	A
Current squared time @ $1ms \leq t \leq 8.3ms$ $T_J = 25^\circ C$, Rating of per diode	I^2t	3.735	A ² s
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	30	A
Operating and Storage Junction Temperature Range	T_J, T_{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	E1J	Unit
Maximum Instantaneous Forward Voltage ($I_F = 1.0$ Amp $T_c = 25^\circ C$)	V_F	1.7	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_c = 25^\circ C$) (Rated DC Voltage, $T_c = 125^\circ C$)	I_R	5 100	uA
Reverse Recovery Time ($I_F = 0.5$ A, $I_R = 1.0$, $I_{rr} = 0.25$ A)	T_{rr}	35	nS
Typical Junction Capacitance (Reverse Voltage of 0 volts & $f = 4$ MHz)	C_j	15	pF

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

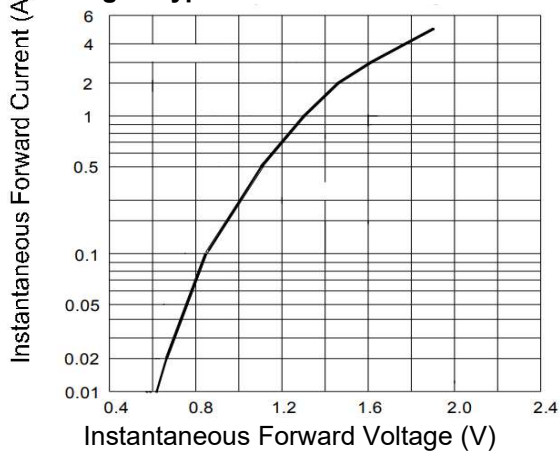


Fig 2. Typical Reverse Characteristics

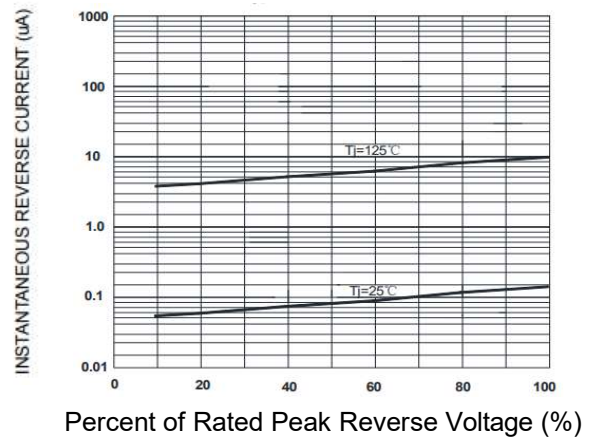


Fig 3. Forward Current Derating Curve

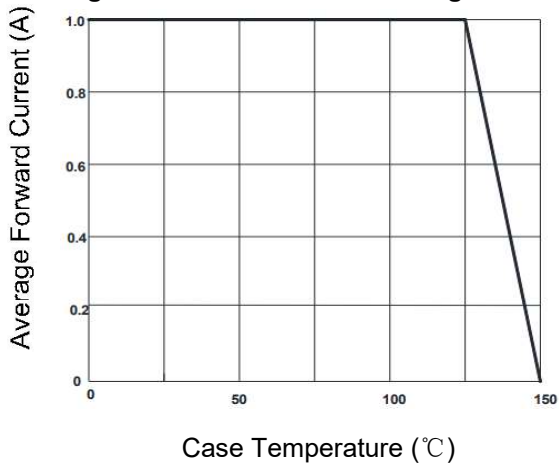
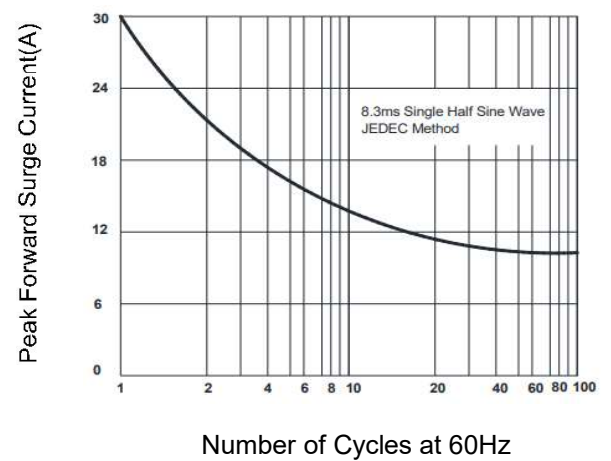
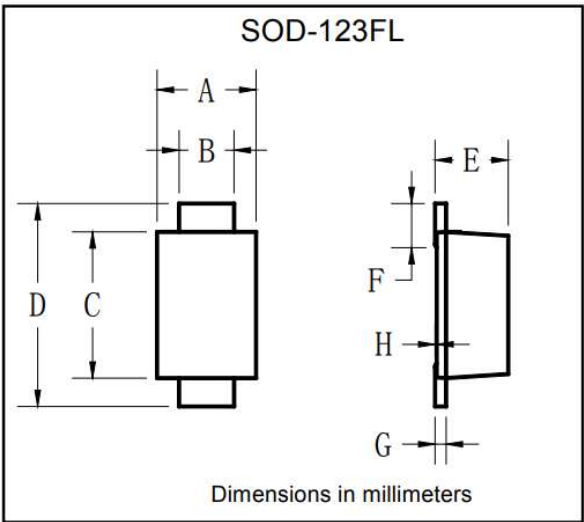


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

SOD-123FL		
Dim	Min	Max
A	1.38	1.95
B	0.50	1.10
C	2.50	2.90
D	3.50	3.90
E	0.80	1.33
F	0.25	0.90
G	0.10	0.25
H	0.02	0.05



Marking Information

