

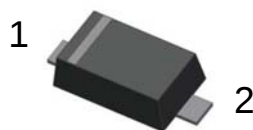


A1-A7

Features:

- ☐ For surface mounted applications
- ☐ Low profile package
- ☐ Glass Passivated Chip Junction
- ☐ Ideal for automated placement
- ☐ Lead free in comply with EU RoHS 2011/65/EU directives

SOD-123FL



1. Cathode 2. Anode

Absolute Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbols	A1	A2	A3	A4	A5	A6	A7	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 125^{\circ}\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current $T_a = 25^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 125^{\circ}\text{C}$	I_R	5 50							μA
Typical Junction Capacitance ⁽¹⁾	C_j	8(TYP.)							pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	90							$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	$-55 \sim +150$							$^{\circ}\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Characteristics

Fig.1 Forward Current Derating Curve

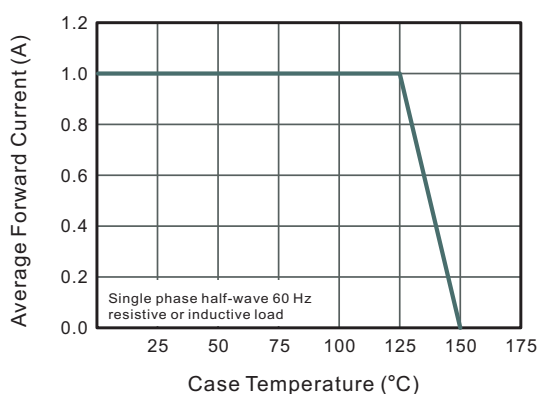


Fig.2 Typical Instantaneous Reverse Characteristics

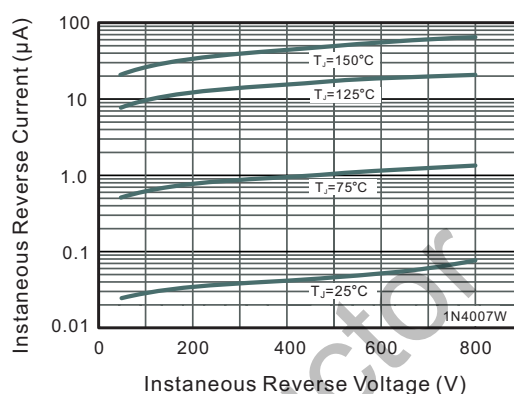


Fig.3 Typical Forward Characteristic

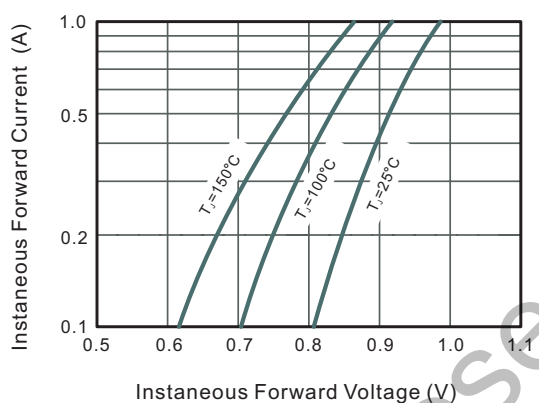


Fig.4 Typical Junction Capacitance

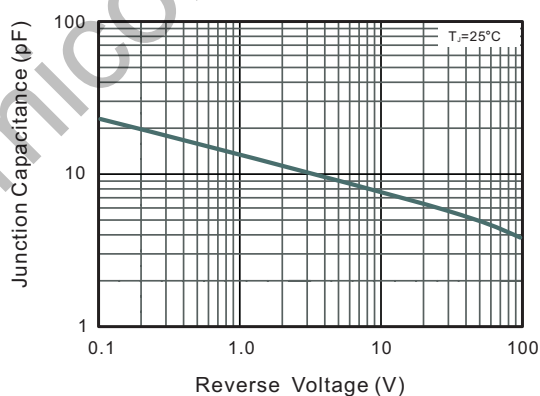
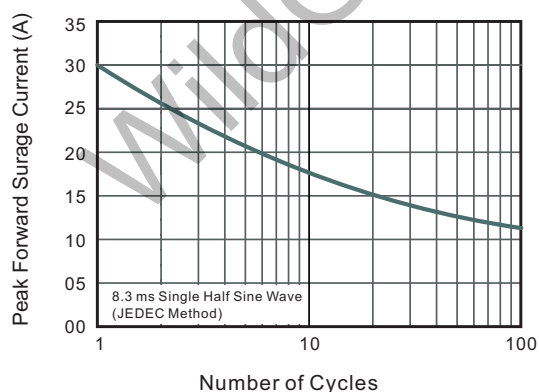
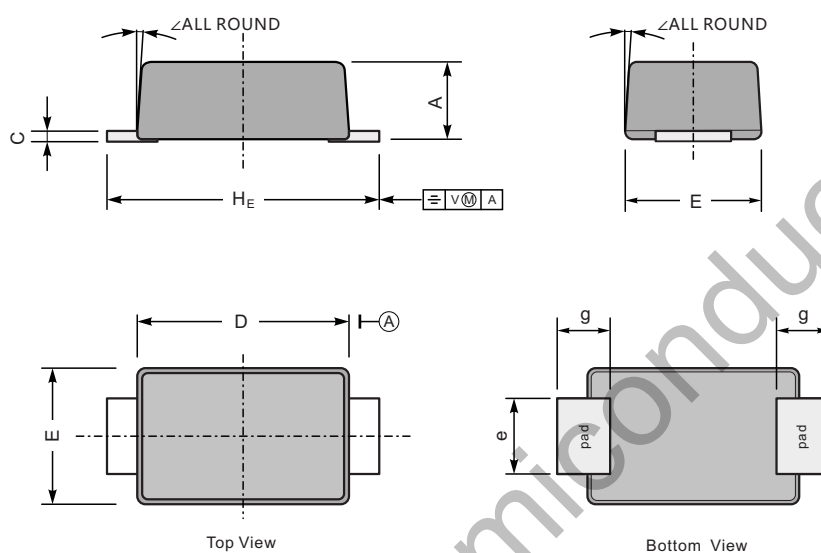


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Package Dimension**SOD-123FL**

Unit: mm



UNIT		A	C	D	E	e	g	H_E	$\angle$
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size