

Features

- For surface mount applications
- Glass passivated chip junction
- Low profile package
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directive

SOD-123FL



1.Cathode —|<— 2.Anode

Marking Code:

FR101FL: F2
FR102FL: F2
FR103FL: F2
FR104FL: F2
FR105FL: F5
FR106FL: F7
FR107FL: F7

Absolute Maximum Ratings and Characteristics

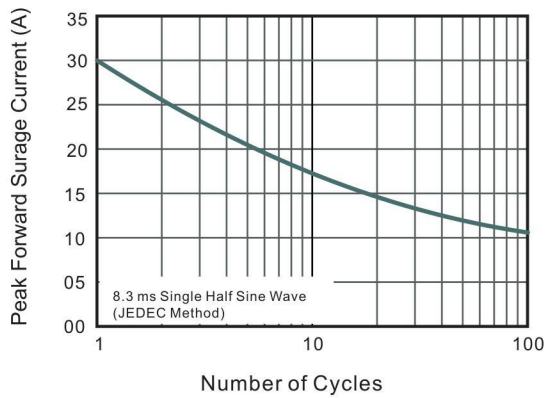
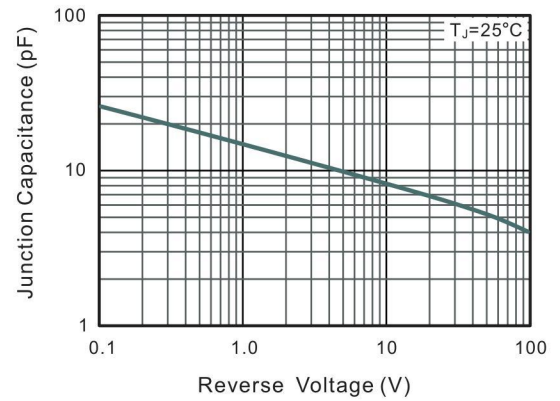
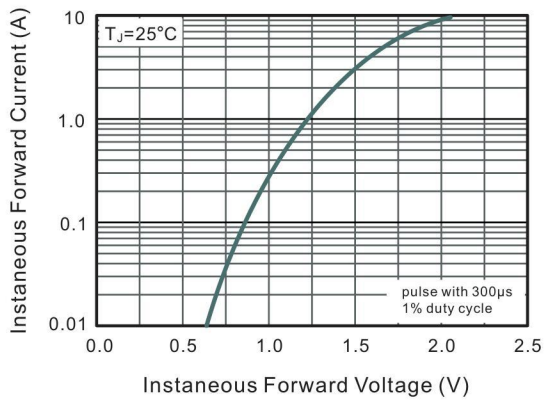
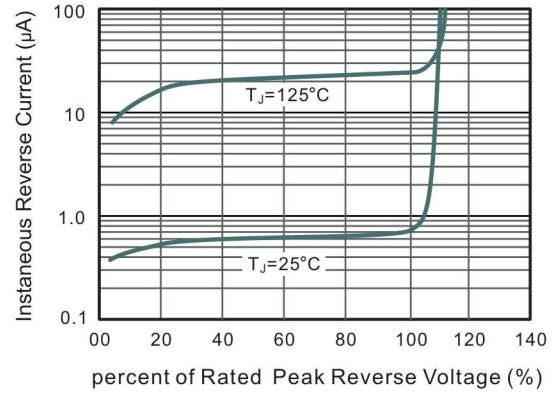
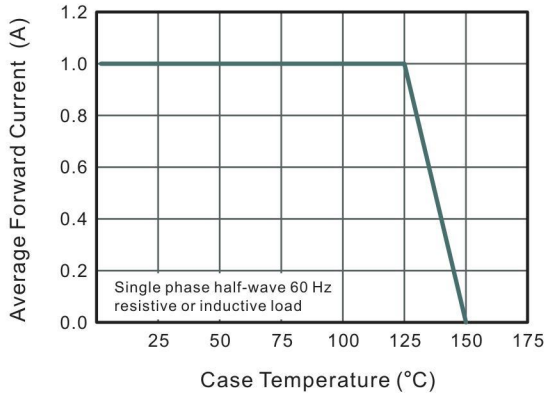
Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	FR101FL	FR102FL	FR103FL	FR104FL	FR105FL	FR106FL	FR107FL	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°C	I _{F(AV)}	1.0							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	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25 °C T _A = 125 °C	I _R	5 100							μA
Typical Junction Capacitance ^{Note1}	C _j	15							pF
Typical Thermal Resistance ^{Note2}	R _{θJA}	85							°C/W
Maximum Reverse Recovery Time ^{Note3}	T _{rr}	150				250	500		nS
Junction Temperature	T _J	150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Note:

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.
3. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ A}$

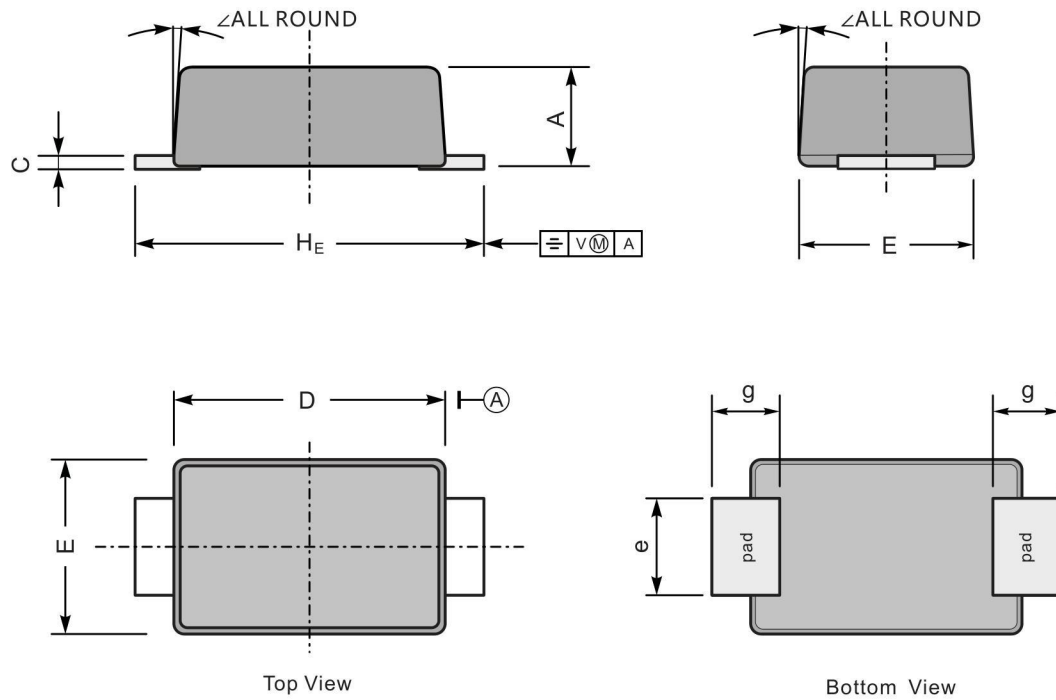
Typical Characteristic Curves



Package Outline

SOD-123FL

Dimensions in mm



UNIT		A	C	D	E	e	g	H _E	∠
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	