

Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 1000 V

Forward Current - 1.2 A

FEATURES

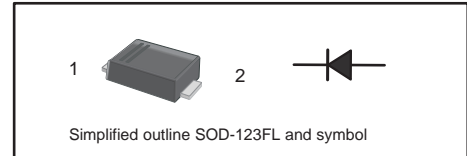
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Ideal for automated placement
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00053oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings and Electrical 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	FF12MW	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.2	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	50	A
Maximum Instantaneous Forward Voltage at 1.2 A	V_F	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a = 25^\circ C$ 5	μA
		$T_a = 125^\circ C$ 50	
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	120	ns
Typical Junction Capacitance at $V_R=4V$, $f=1MHz$	C_j	15	pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$ $R_{\theta JC}$	80	$^\circ C/W$
		25	
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^\circ C$

(1) Measured with $I_F = 0.5 A$, $I_R = 1 A$, $I_n = 0.25 A$.

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

Fig.1 Forward Current Derating Curve

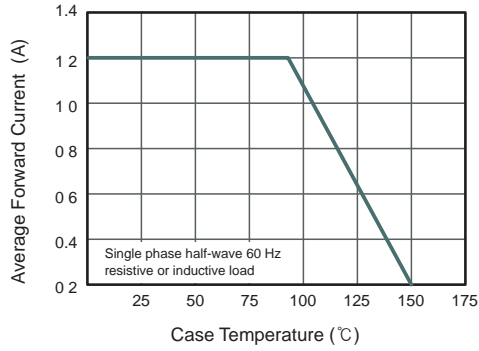


Fig.2 Typical Reverse Characteristics

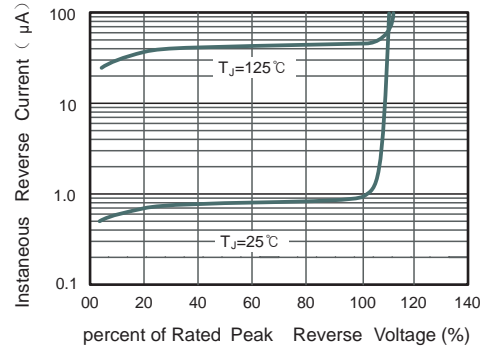


Fig.3 Typical Instantaneous Forward Characteristics

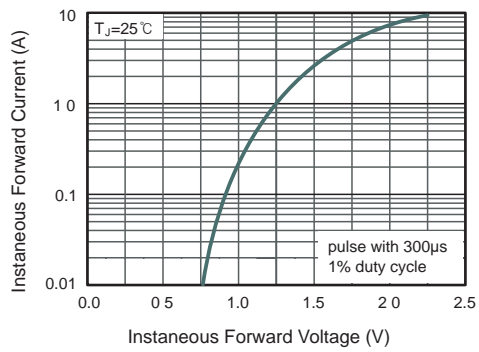


Fig.4 Typical Junction Capacitance

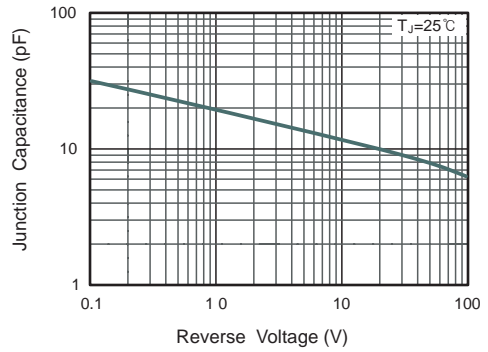
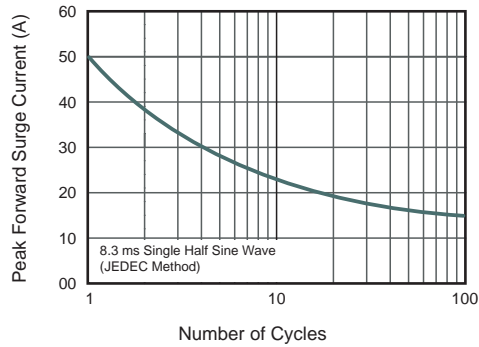


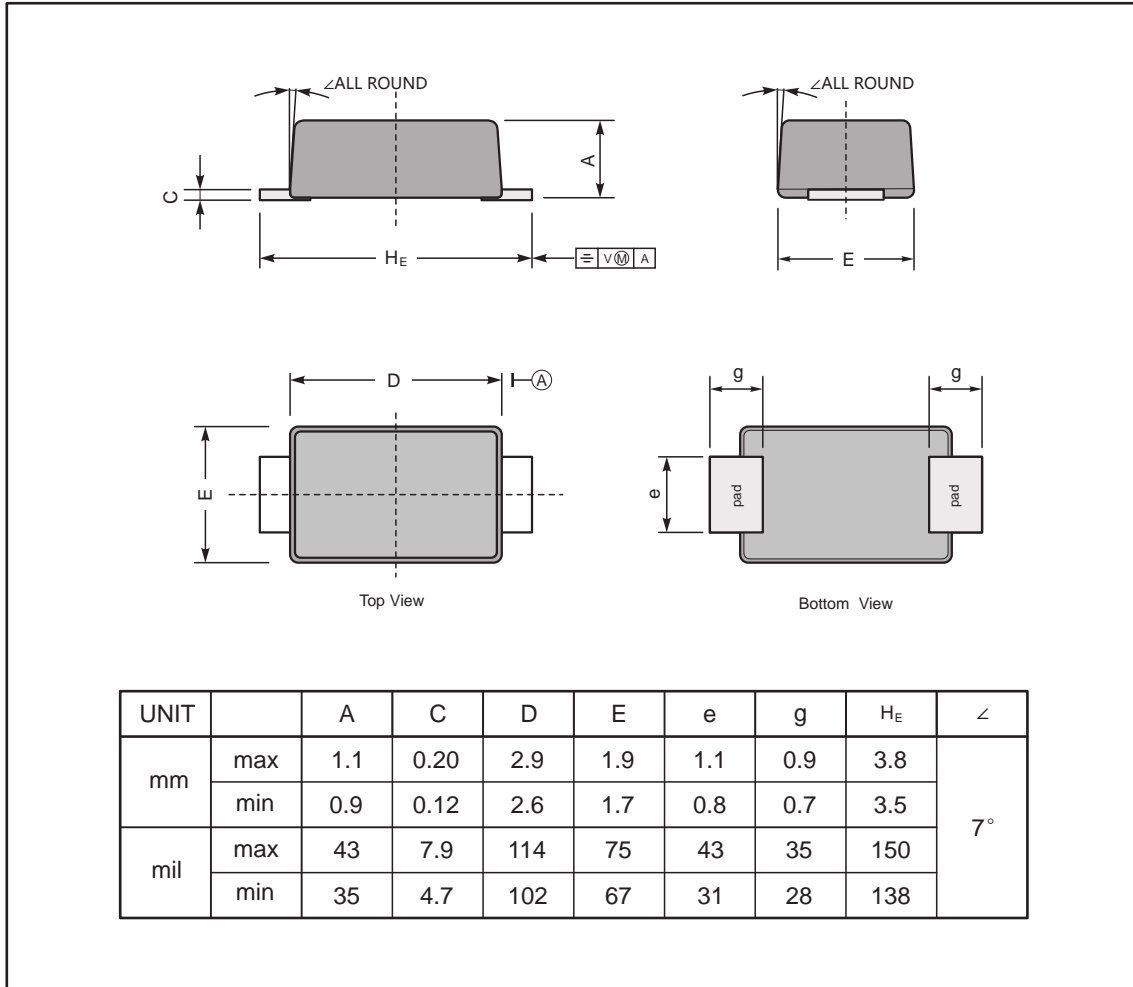
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



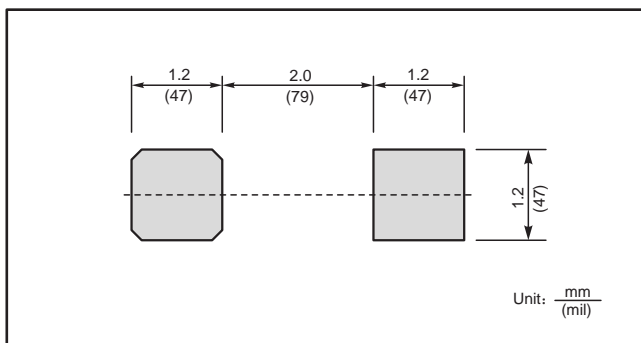
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



The recommended mounting pad size



Marking

Type number	Marking code
FF12MW	FF7