1N4007W

ROHS

Surface Mount General Purpose Silicon Rectifier

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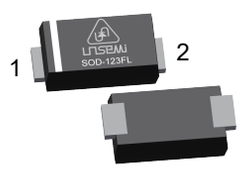
Features

- 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

Mechanical Data

- Case: SOD-123FL
- Quantity Per Reel : 3,000pcs
- Approx. Weight : 15mg/0.00048oz
- Terminals: Solderable per MIL-STD-750, Method 2026
- Device Marking: A7

SOD-123FL



1：Cathode

2：Anode

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter		Symbol	Value	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 at Tc =125℃		$I_{F(AV)}$	1.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		I_{FSM}	30	A
Max Instantaneous Forward Voltage at 1A		V_F	1.1	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25℃	I_R	5.0	μA
	Ta=125℃	I_R	50	
Typical Junction Capacitance (1)		Cj	8.0	pF
Typical Thermal Resistance (2)		$R_{\theta JA}$	90	℃/W
Operating Junction Temperature Range		T_J	-55 ~ +150	℃
Storage Temperature Range		Tstg	-55 ~ +150	℃

Note: (1) Measured at 1MHz and applied reverse voltage of 4VDC.

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

Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

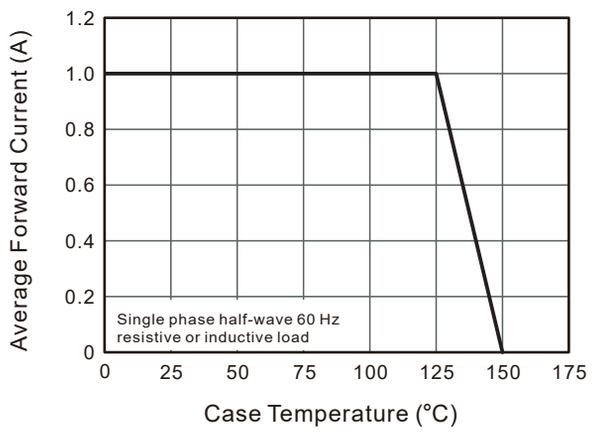


Fig. 2 Typical Instaneous Reverse Characteristics

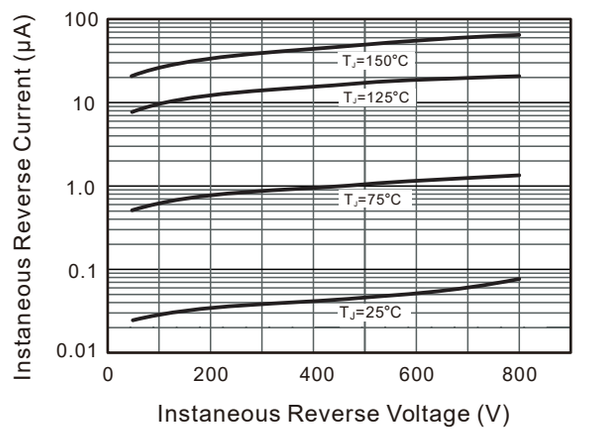


Fig.3 Typical Forward Characteristic

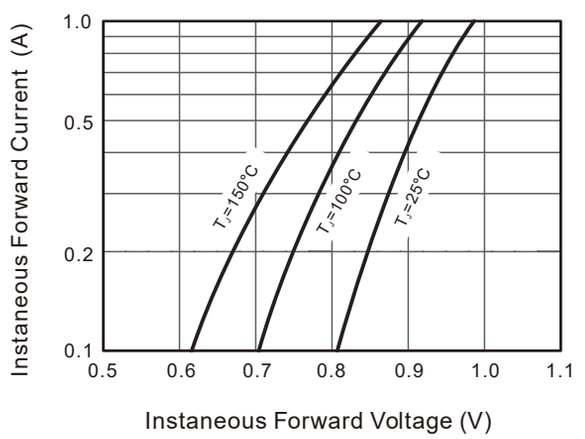


Fig. 4 Typical Junction Capacitance

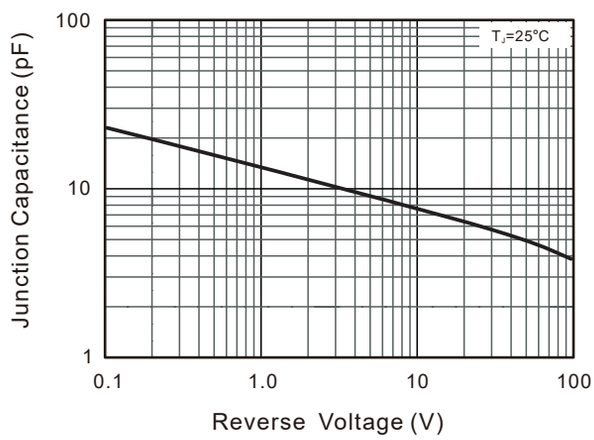
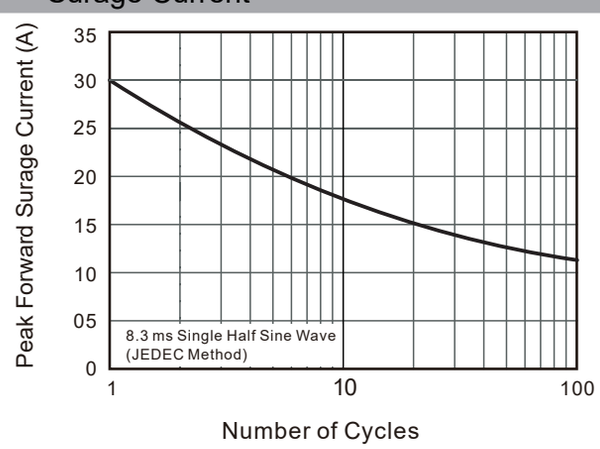
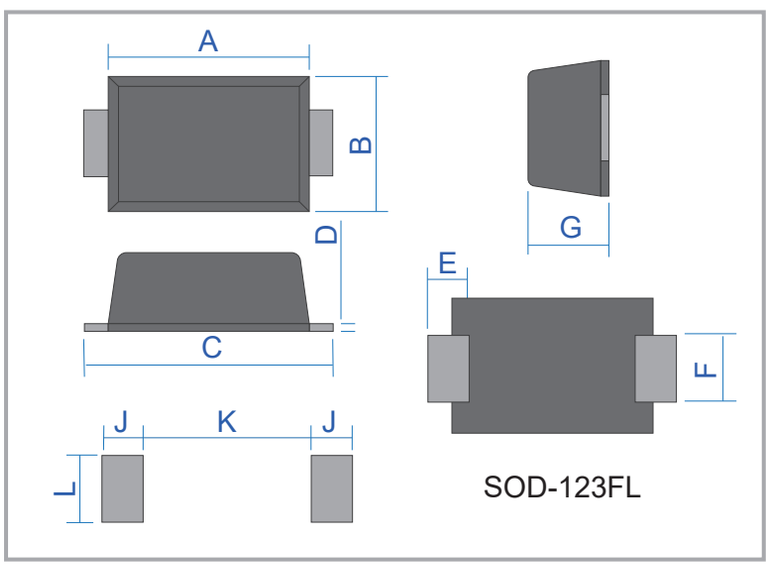


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline & Dimensions



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	2.60	3.00	0.102	0.118
B	1.60	2.00	0.063	0.079
C	3.45	3.95	0.136	0.156
D	0.10	0.25	0.004	0.010
E	0.30	0.90	0.012	0.035
F	0.80	1.20	0.031	0.047
G	0.95	1.35	0.037	0.053
J	1.30		0.051	
K		1.70		0.067
L	1.30		0.051	

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