

Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V

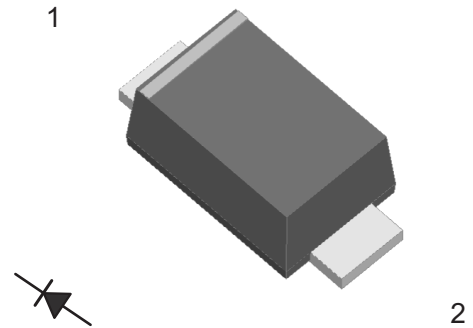
Forward Current - 1 A

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026



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	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@ Fig.1	$I_{F(AV)}$	1							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
I^2t Rating for fusing(3ms $\leq t \leq$ 8.3ms)	I^2t	3.7							A ² S
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_j = 25\text{ }^{\circ}\text{C}$ $T_j = 125\text{ }^{\circ}\text{C}$	I_R	5 50							μA
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^{\circ}\text{C}$

Fig.1 Forward Current Derating Curve

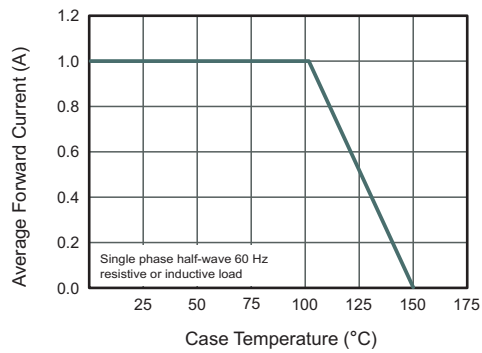


Fig.2 Typical Instantaneous Reverse Characteristics

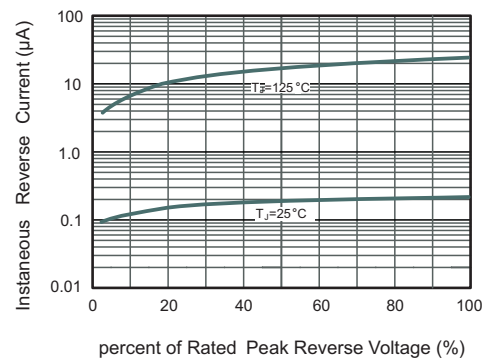


Fig.3 Typical Forward Characteristic

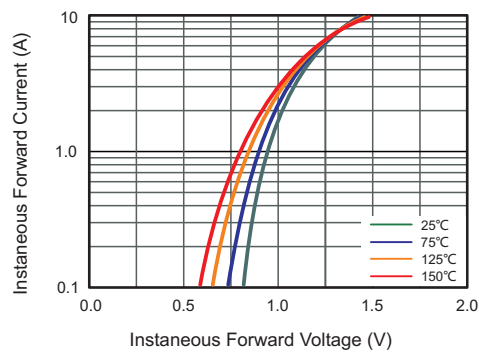
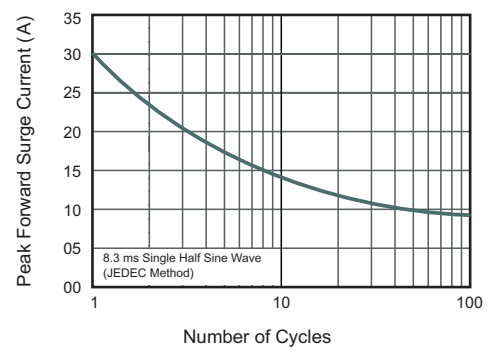
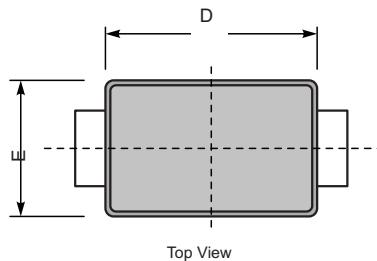
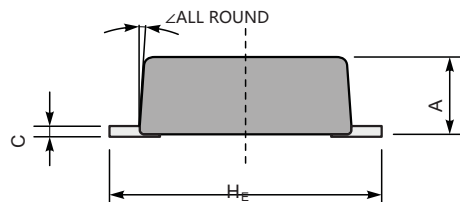


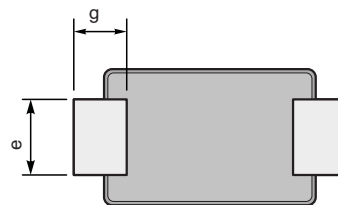
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



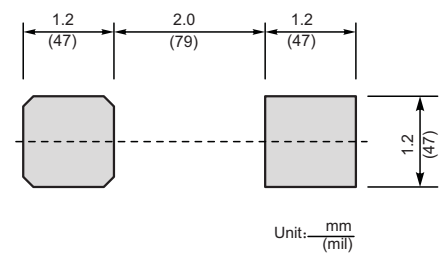
The recommended mounting pad size



Top View



Bottom View



UNIT		A	C	D	E	e	g	HE	∠
mm	max	1.2	0.20	2.9	1.9	1.1	0.8	3.8	6°
	min	0.9	0.12	2.6	1.7	0.8	0.5	3.5	
mil	max	47	7.9	114	75	43	31	150	
	min	35	4.7	102	67	31	19	138	

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