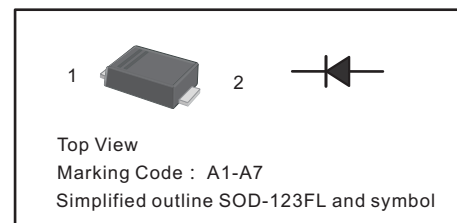


SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

FEATURES

- Automotive Grade Diode
- 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

PIN	DESCRIPTION
1	Cathode
2	Anode



MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 15mg 0.00048oz

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 at $T_a = 65^\circ\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	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	6							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	180							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

Notes:

- 1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
- 2) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted

SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

RATING AND CHARACTERISTIC CURVES A1 - A7

Fig.1 Forward Current Derating Curve

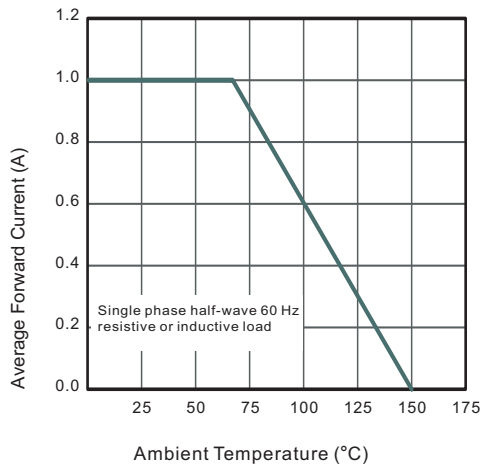


Fig.2 Typical Instantaneous Reverse Characteristics

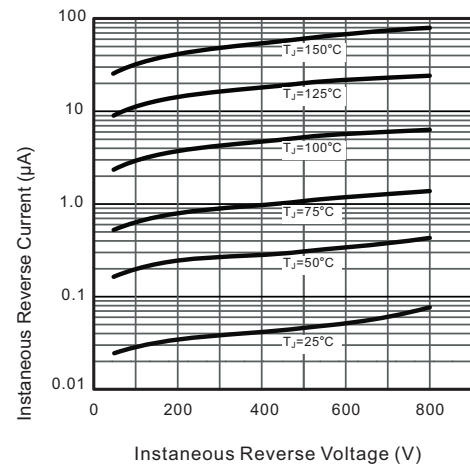


Fig.3 Typical Forward Characteristic

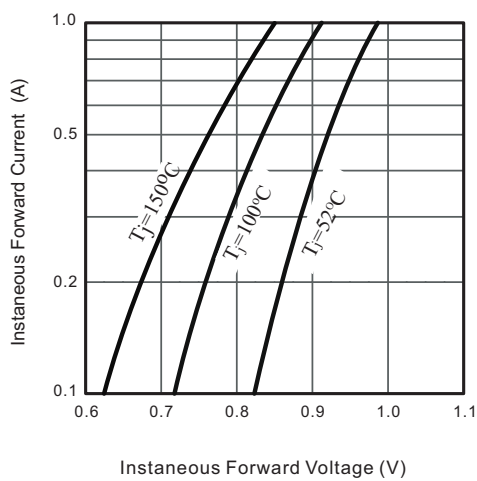
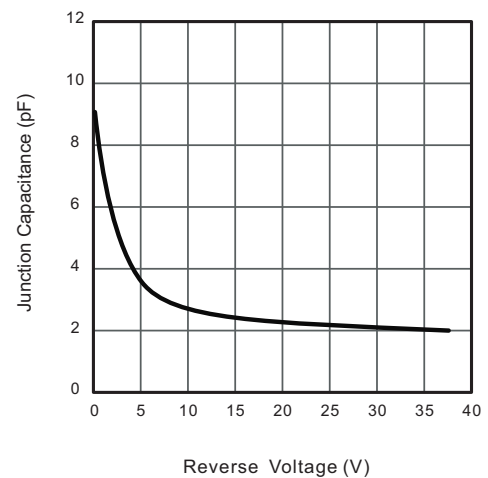


Fig.4 Typical Junction Capacitance

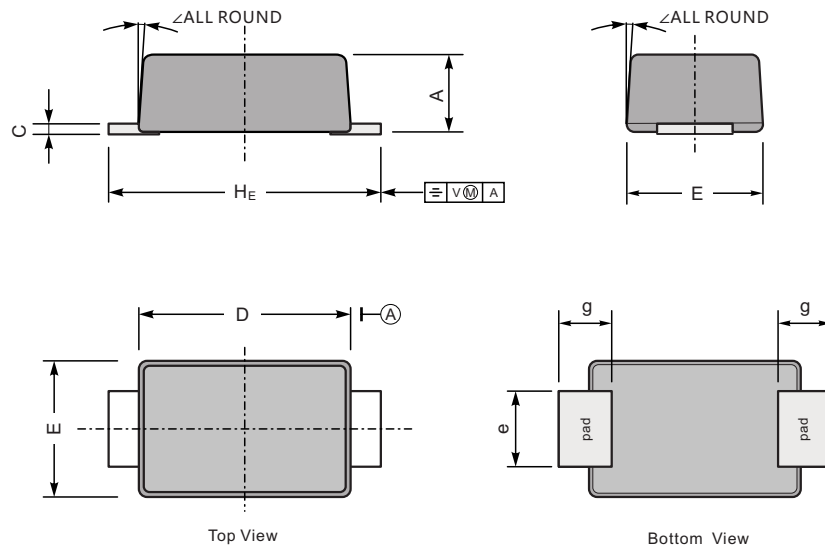


SURFACE MOUNT GENERAL PURPOSE SILICON RECTIFIER

PACKAGE OUTLINE

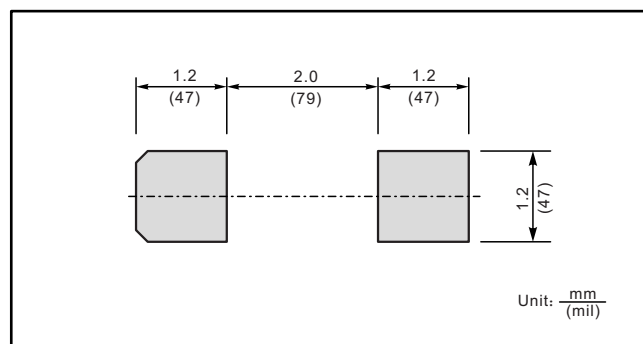
Plastic surface mounted package; 2 leads

SOD-123FL



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	

The recommended mounting pad size



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.