SAMYANG ELECTRONICS

RS1001FL --- RS1010FL

FAST RECOVERY RECTIFIERS

VOLTAGE RANGE: 100 --- 1000 V
CURRENT: 1.0 A

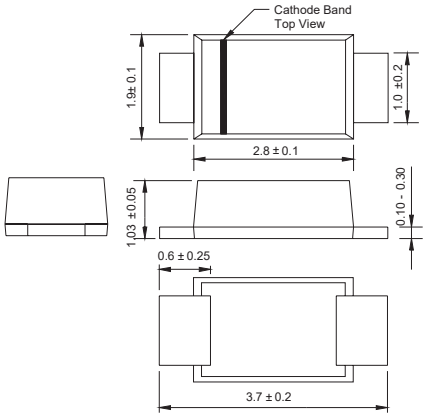
FEATURES

- ◇ Glass passivated device
- ◇ Ideal for surface mouted applications
- ◇ Low leakage current
- ◇ Metallurgically bonded construction
- ◇ High temperature soldering:
  250℃/10 seconds at terminals

MECHANICAL DATA

- ◇ Case:JEDEC SOD-123FL,molded plastic over passivated chip
- ◇ Terminals:Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.0172 gram
- ◇ Mounting position: Any

SOD - 123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single hase,half wave,60Hz,resistive or inductive load.For capactive load,derate current by 20%.

Parameter	Symbols	RS1001FL	RS1002FL	RS1004FL	RS1006FL	RS1008FL	RS1010FL	Units
Device marking code		F2	F3	F4	F5	F6	F7	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_c = 125 °C	$I_{F(AV)}$	1						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30						A
Maximum Forward Voltage at 1 A	V_F	1.3						V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a =125 °C	I_R	5 100						μA
Typical Junction Capacitance at V_R=4V, f=1MHz	C_j	15						pF
Maximum Reverse Recovery Time (1)	t_{rr}	150			250	500		ns
Typical Thermal Resistance (2)	$R_{\theta JA}$	85						°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

(1) Measured with I_F = 0.5 A, I_R = 1 A, I_{rr} = 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

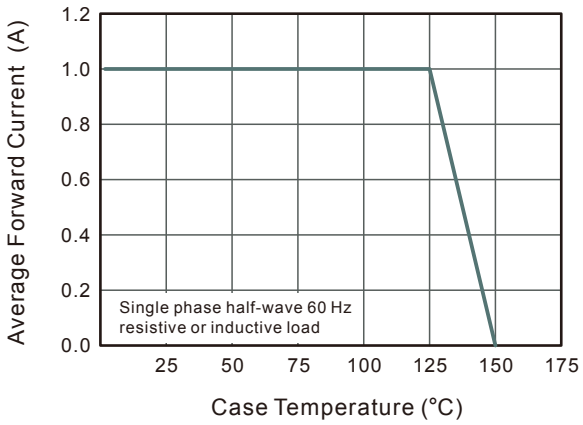


Fig.2 Typical Reverse Characteristics

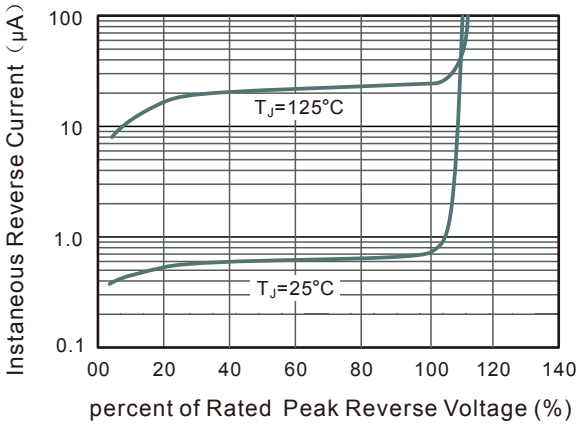


Fig.3 Typical Instaneous Forward Characteristics

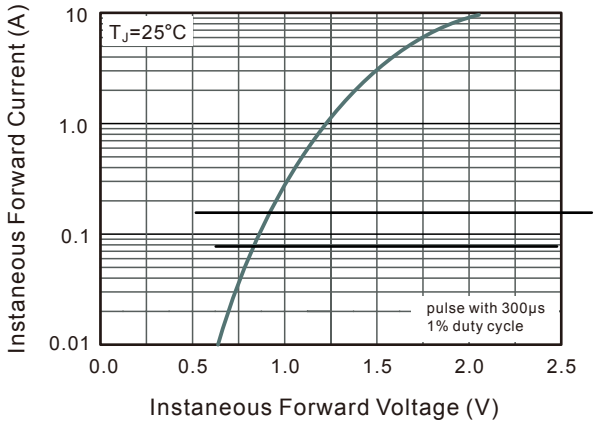


Fig.4 Typical Junction Capacitance

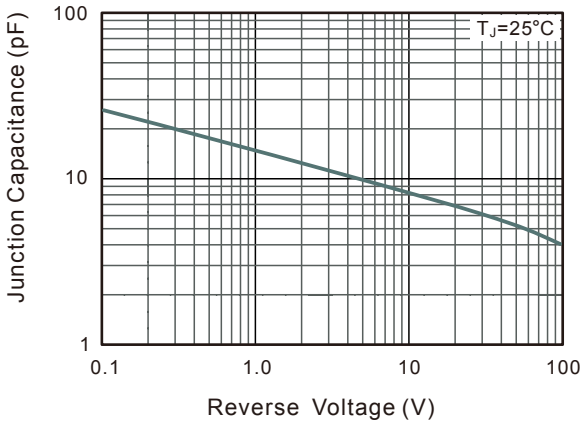
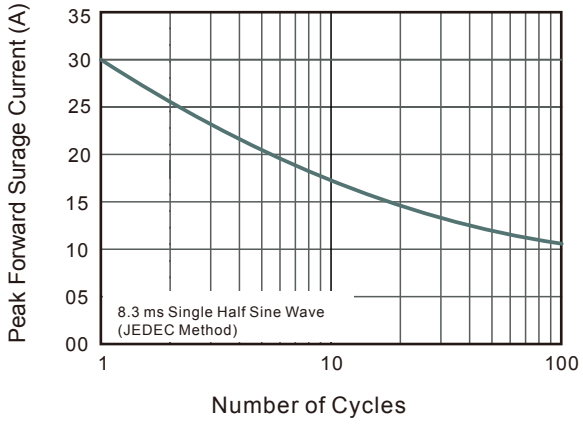


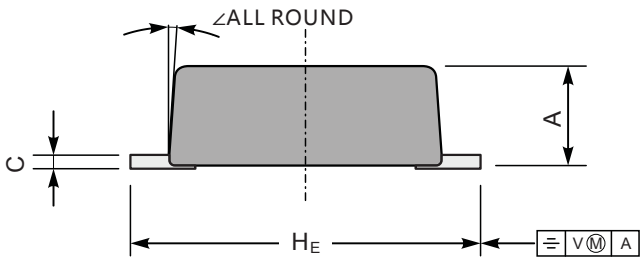
Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

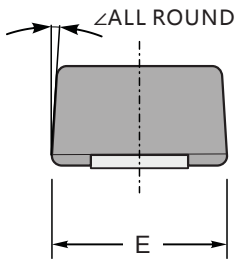


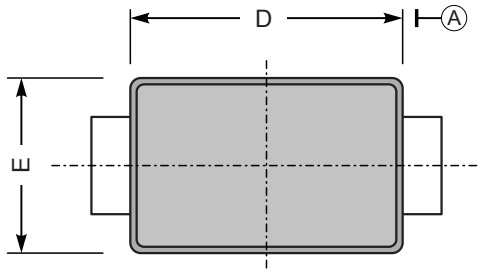
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

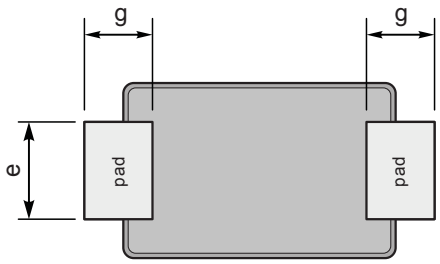
SOD-123FL







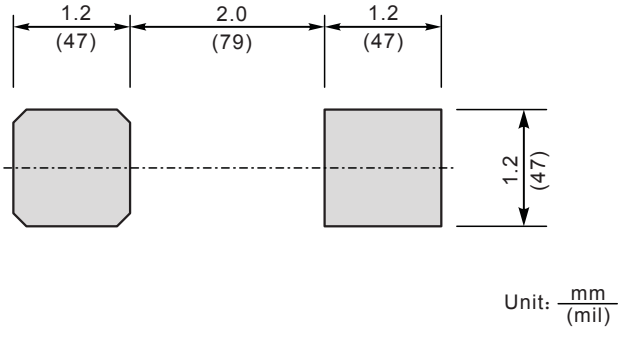
Top View



Bottom View

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



Marking

Type number	Marking code
RS1001FL	F2
RS1002FL	
RS1004FL	
RS1006FL	F5
RS1008FL	F7
RS1010FL	