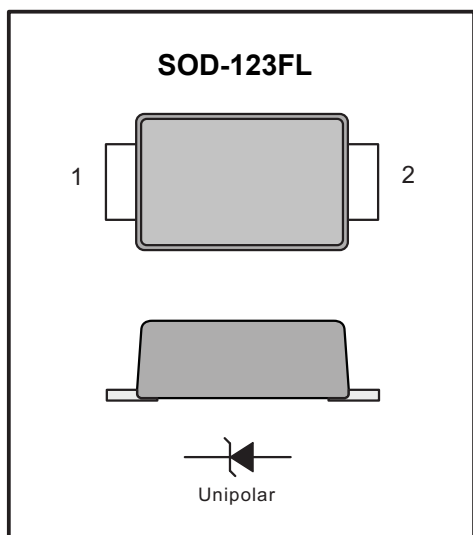


SURFACE MOUNT FAST RECOVERY RECTIFIER

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Features

- ◆ Glass passivated device
- ◆ Ideal for surface mounted applications
- ◆ Low reverse leakage
- ◆ Metallurgically bonded construction
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

- ◆ Case : JEDEC SOD-123FL molded plastic body
- ◆ Terminals : Solderable per MIL-STD-750, Method 2026
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any
- ◆ Weight : 0.0007 ounce, 0.02 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Marking Code		F1	F2	F3	F4	F5	F6	F7	
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 TL(see fig.1)	I _(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I _{FSM}	25							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							V
Maximum DC reverse current TA=25℃ at rated DCblocking voltage TA=125℃	I _R	5 50							uA
Typical junction capacitance (NOTE 1)	C _J	4							pF
Maximum Reverse Recovery Time	t _{rr}	150				250	500		ns
Typical thermal resistance (NOTE 2)	R _{θJA}	180.0							℃/W
Operating junction temperature range	T _J	-55 to +125							℃
Storage temperature range	T _{STG}	-55 to +150							℃

Note: 1. Averaged over any 20ms period.
2. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
4. Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.

Fig.1 Forward Current Derating Curve

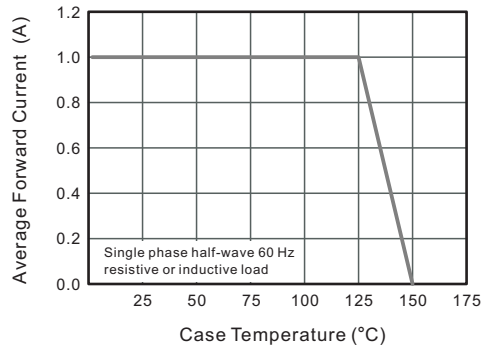


Fig.2 Typical Reverse Characteristics

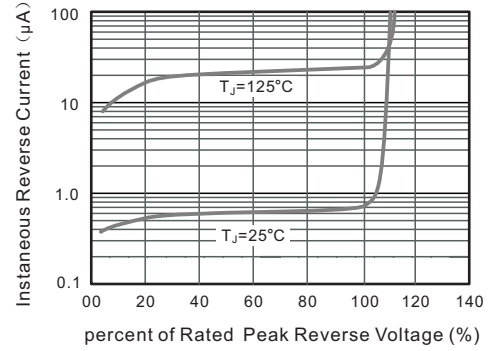


Fig.3 Typical Instantaneous Forward Characteristics

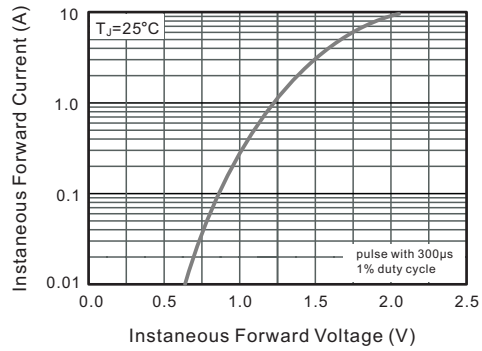


Fig.4 Typical Junction Capacitance

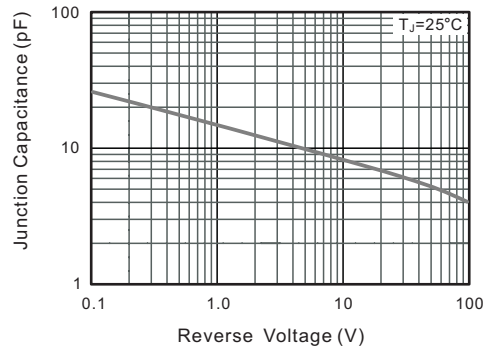
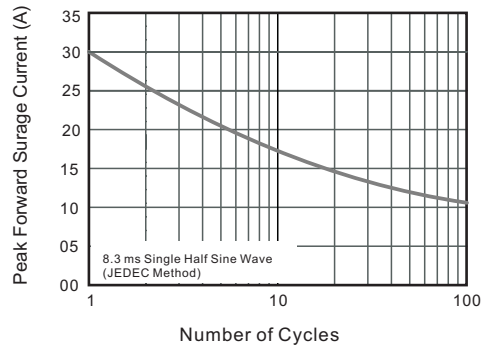


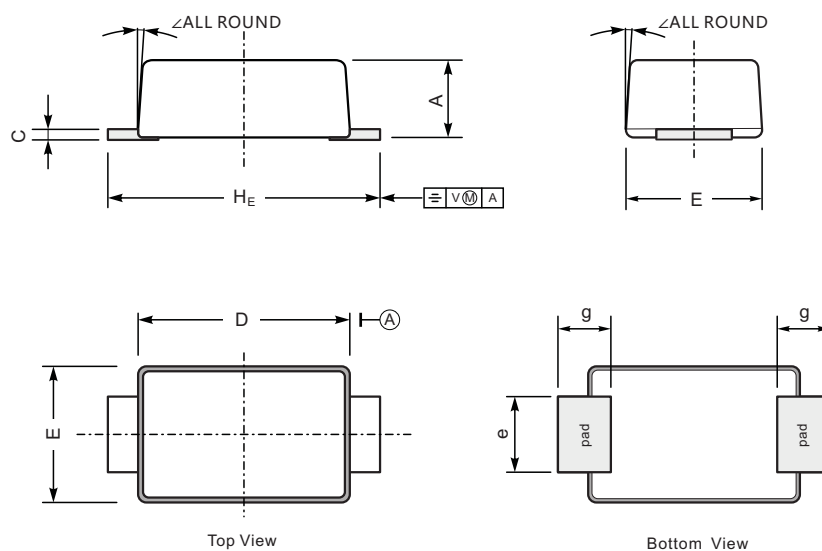
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



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

