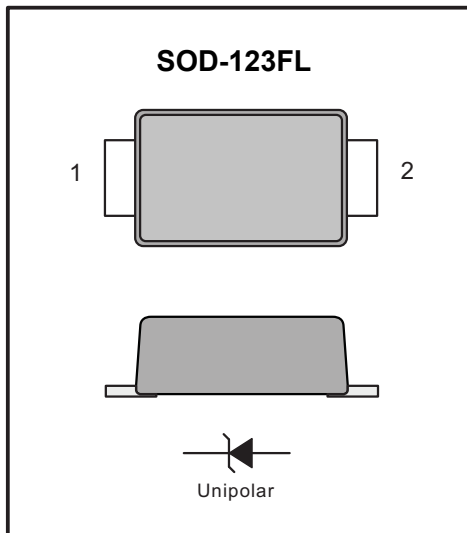


## SURFACE MOUNT FAST RECOVERY RECTIFIER

### 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 UOD-123FL molded plastic body
- ◆ Terminals : Solderable per MIL-STD-750, Method 2026A
- ◆ Polarity : Polarity symbol marking on body
- ◆ Mounting Position : Any
- ◆ Weight : 0.0067 ounce, 0.02 grams

## Maximum Ratings And Electrical Characteristics

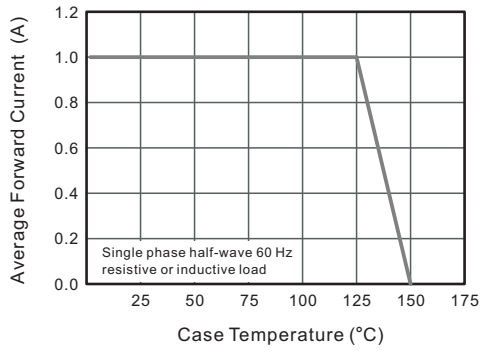
Ratings at 25°C ambient temperature unless otherwise specified.

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

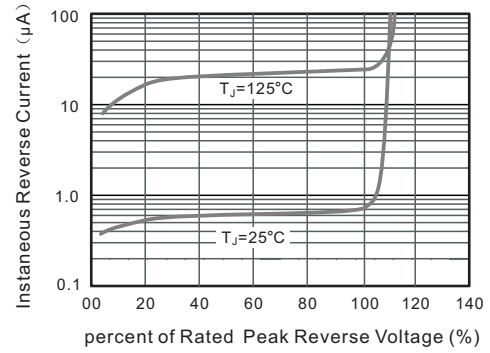
Parameter	SYMBOLS	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Marking Code		F1	F2	F3	F4	F5	F6	F7	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	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 on rated 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°C at rated DC blocking voltage TA=125°C	$I_R$	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)	$R_{\theta JA}$	180.0							°C/W
Operating junction temperature range	$T_J$	-55 to +125							°C
Storage temperature range	$T_{STG}$	-55 to +150							°C

- 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 mm<sup>2</sup> copper pads to each terminal.

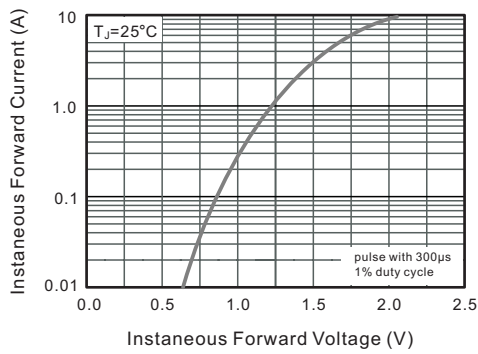
**Fig.1 Forward Current Derating Curve**



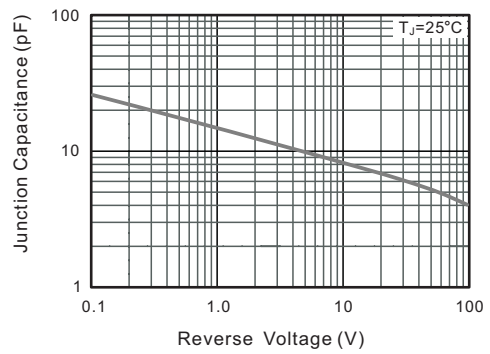
**Fig.2 Typical Reverse Characteristics**



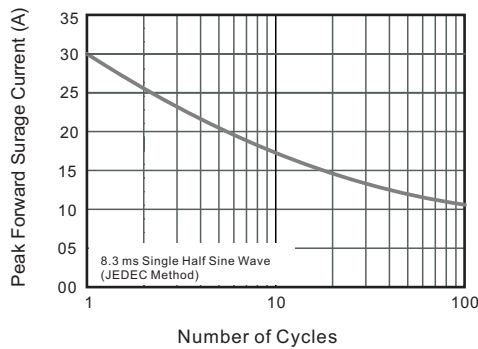
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



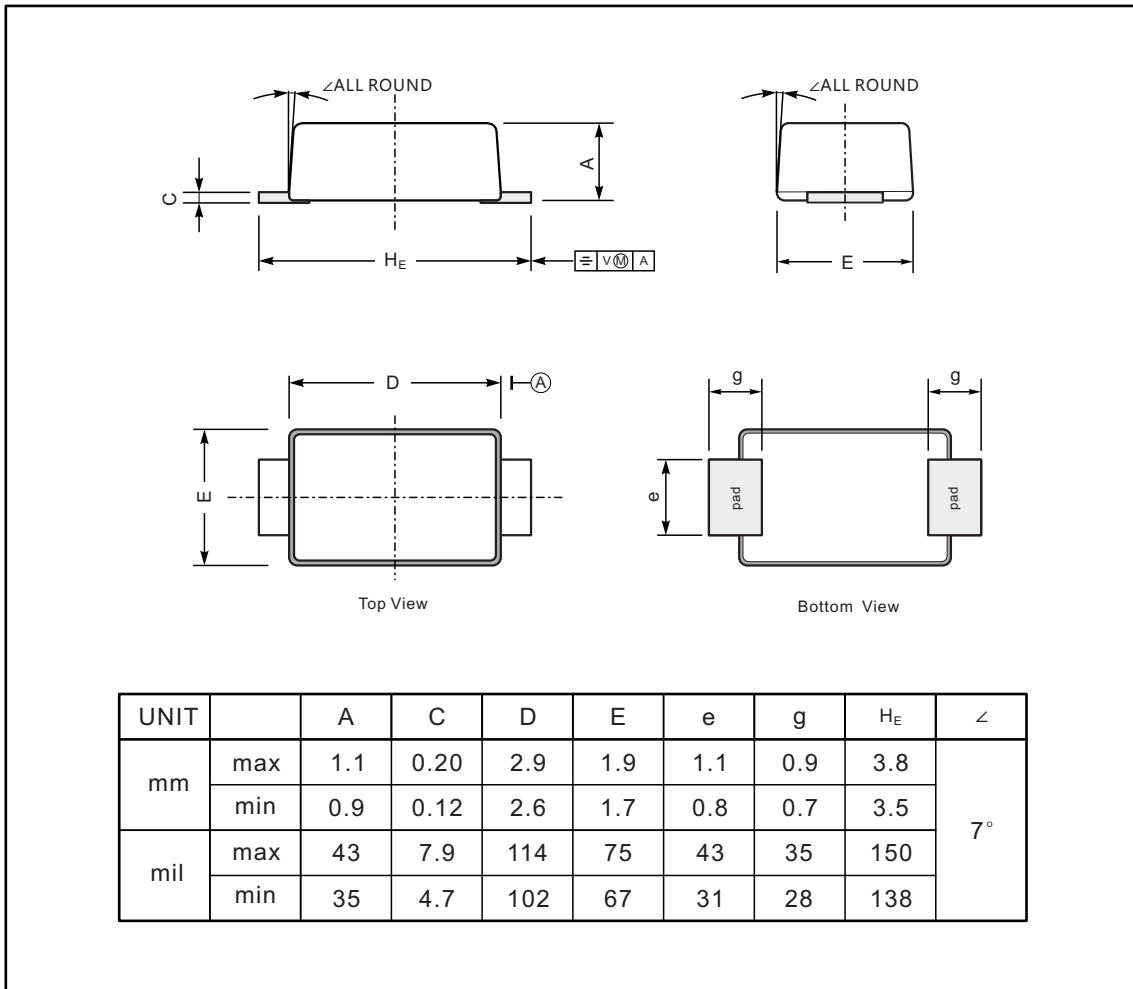
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



### The recommended mounting pad size

