

# F1H THRU F7H

VOLTAGE RANGE  
CURRENT

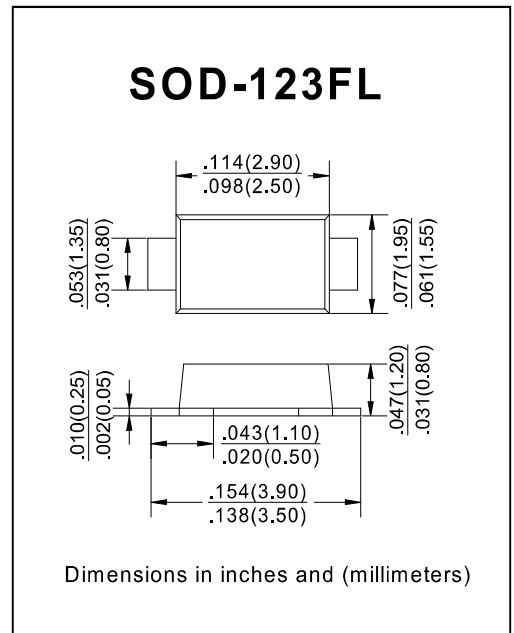
50 to 1000 Volts  
1.0 Ampere

## Features

- Fast recovery glass passivated chip:46mil
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:  
260°C/10S at terminals
- Component in accordance to  
ROHS 2002/95/1 and WEEE 2002/96/EC

## Mechanical Data

- Case: JEDEC SOD-123FL mold plastic  
Body over glass passivated chip
- Terminals:Solder plated, solderable per  
J-STD-002B and JESD22-B102D
- Polarity: Laser band denote cathode band



## 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 derate current by 20%

TYPE NUMBER	SYMBOLS	F1H	F2H	F3H	F4H	F5H	F6H	F7H	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ C$	5.0							$\mu A$
	$T_A = 125^\circ C$	50							
Maximum Reverse Recovery Time(NOTE1)	$T_{RR}$	150				250	500		nS
Typical Junction Capacitance (NOTE2)	$C_J$	15							pF
Typical Thermal Resistance (NOTE 3)	$R_{\theta JA}$	60							$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ C$

### Notes:

- 1.Reverse Recovery Test Conditions: $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$ .
- 2.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 3.Thermal Resistance from Junction to Ambient at  $5.0 \times 5.0mm^2$  copper pad areas.

Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

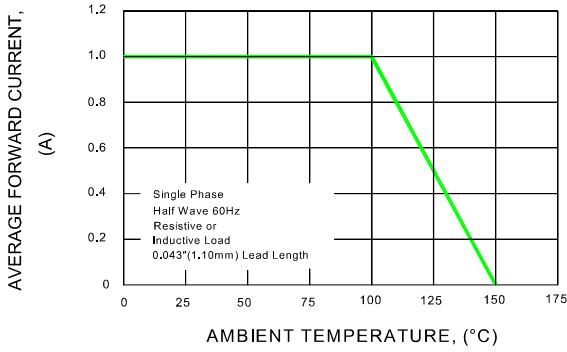


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

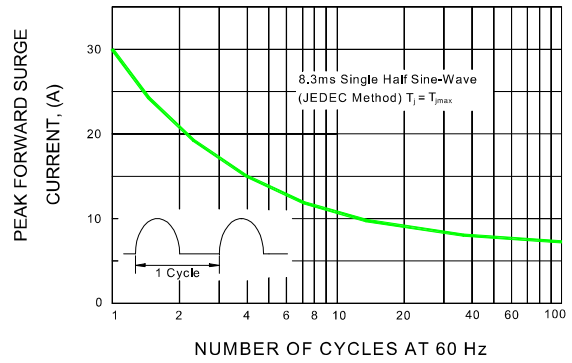


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

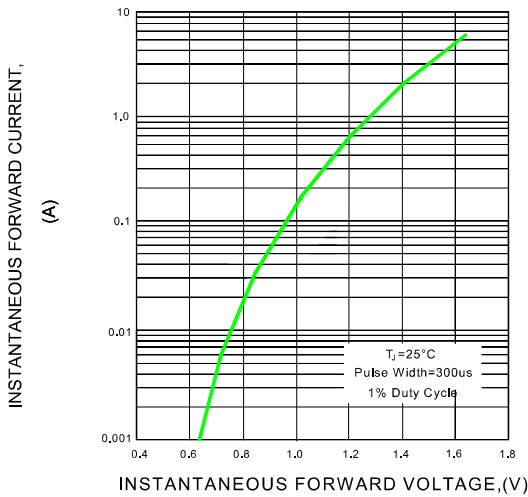


FIG.4-TYPICAL REVERSE CHARACTERISTICS

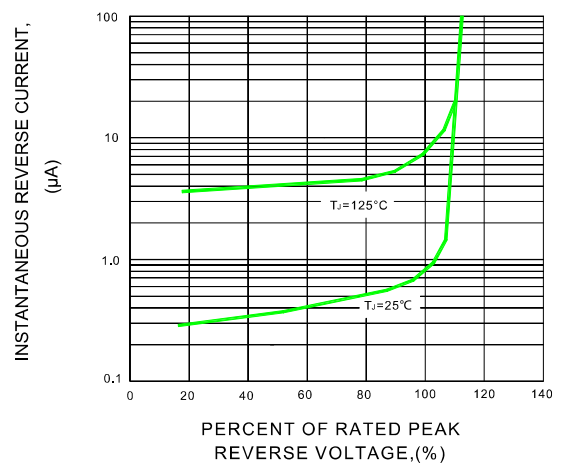


FIG.5-TYPICAL JUNCTION CAPACITANCE

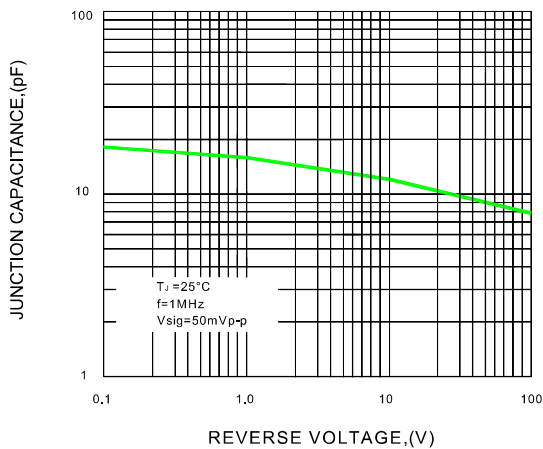
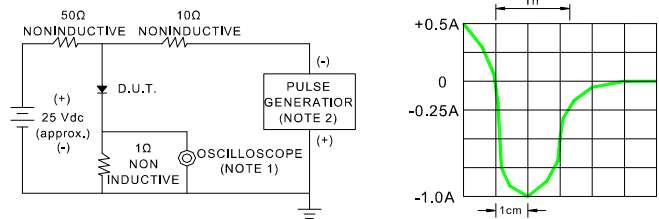


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1. Rise Time=7ns max. Input Impedance= 1 magohm. 22pF  
2. Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm

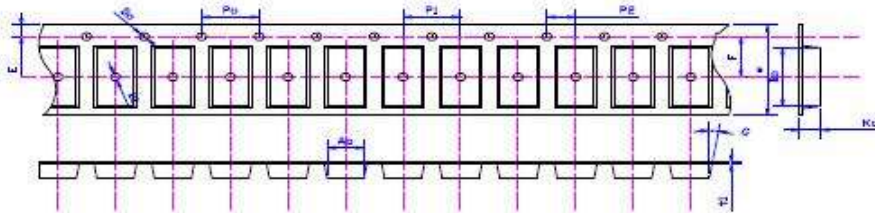
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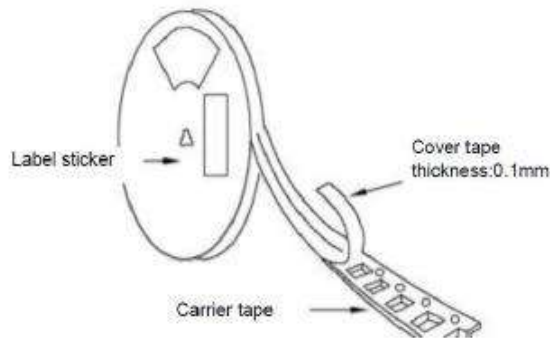
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PACKING REQUIRMENTS

PS black anti-static carrier tape packing



规格	载带类型	A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	P <sub>0</sub>	W	t <sub>1</sub>	备注
SOD123	防静电	2.12±0.10	3.95±0.10	1.35±0.1	4.00±0.1	8.0±0.10	0.20±0.02	



DEVICE TYPE	Tape Width	07" REEL			OUTER BOX SIZE			
		Q'TY/REE L(pcs)	BOX/CAR TOON	Q'TY/CAR TON(pcs)	Length (mm)	Width (mm)	Height (mm)	Thickness (mm)
SOD123	8mm	3000	9000	180000	400	400	250	6
					INSIDE BOX SIZE (mm)			
					190	190	45	1.5
					REEL SIZE (mm)			
					Outer diameter	Inner diameter	Height	Thickness
					185	75	8.5	2.2