

# F1A THRU F1M

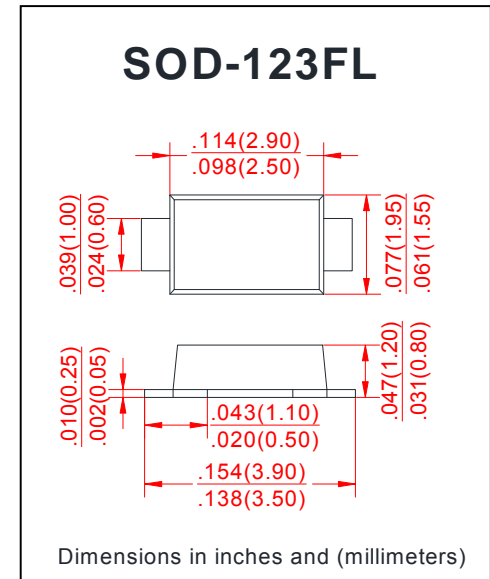
**VOLTAGE RANGE** 50 to 1000 Volts  
**CURRENT** 1.0 Ampere

## FEATURES

- Fast recovery glass passivated chip
- 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%

	SYMBOLS	F1A	F1B	F1D	F1G	F1J	F1K	F1M	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)	$I_{FSM}$	25							Amps	
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.3							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ C$	$I_R$							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.

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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

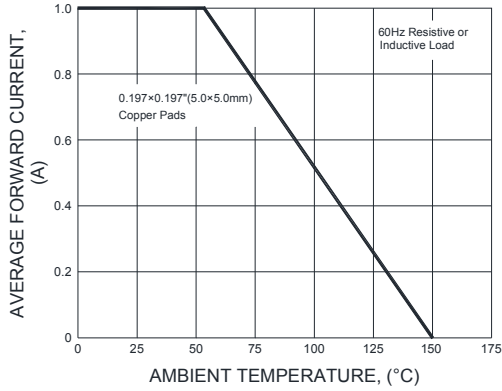


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

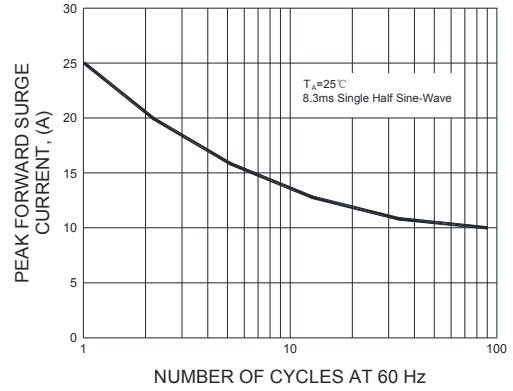


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

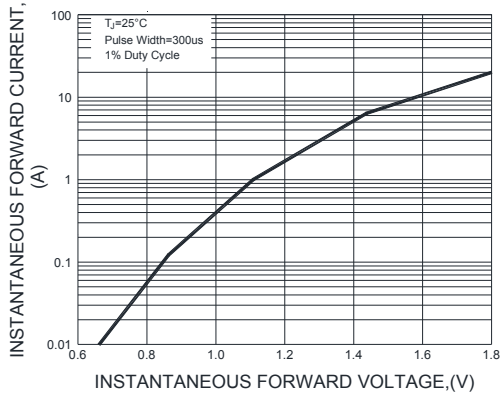


FIG.4-TYPICAL REVERSE CHARACTERISTICS

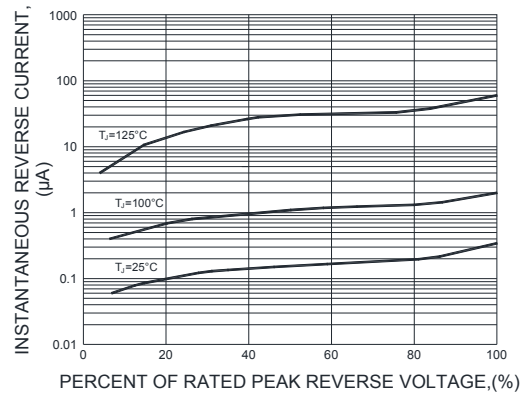


FIG.5-TYPICAL JUNCTION CAPACITANCE

