



SHENZHEN FAITH TECHNOLOGY CO.,LTD

SURFACE MOUNT GLASS PASSIVATED STANDARD RECTIFIER

S1A THRU S1M

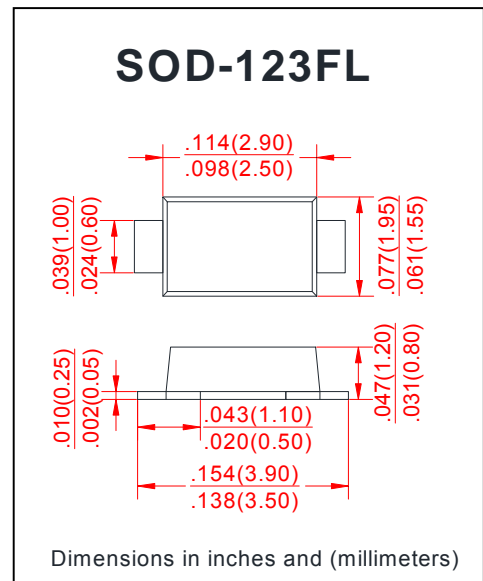
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.0 Ampere

FEATURES

- 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%

	SYMBOLS	S1A	S1B	S1D	S1G	S1J	S1K	S1M	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	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	I_R							5.0	μA
	$T_A = 125^\circ\text{C}$									
Typical Junction Capacitance (NOTE 1)	C_J	15							pF	
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	60							$^\circ\text{C}/\text{W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

Notes:

- 1.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 2.Thermal Resistance from Junction to Ambient at. $5.0 \times 5.0\text{mm}^2$ copper pad areas.



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FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

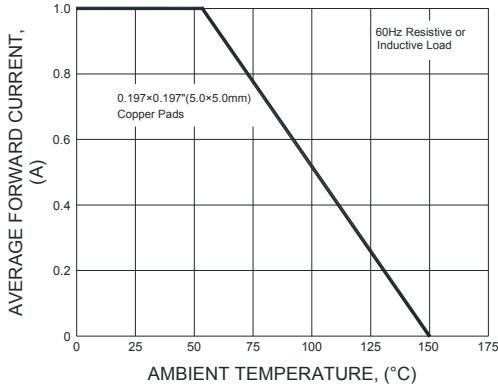


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

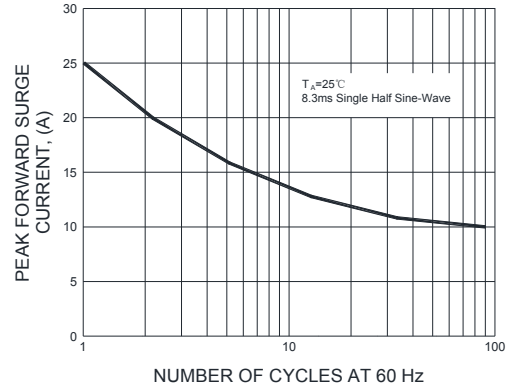


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

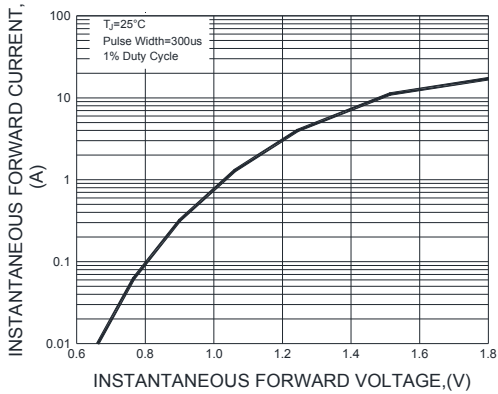


FIG.4-TYPICAL REVERSE CHARACTERISTICS

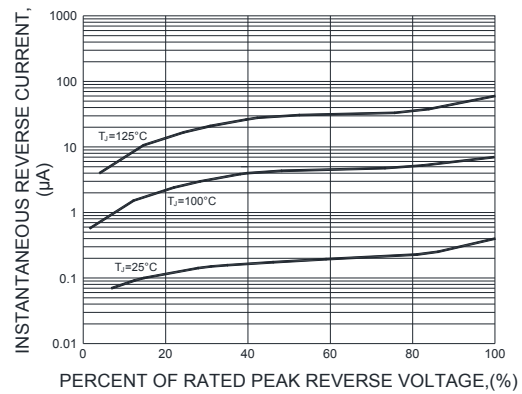


FIG.5-TYPICAL JUNCTION CAPACITANCE

