SHENZHEN FAITH TECHNOLOGY CO.,LTD

SURFACE MOUNT FAST RECOVERY RECTIFIER

F1A THRU F1M

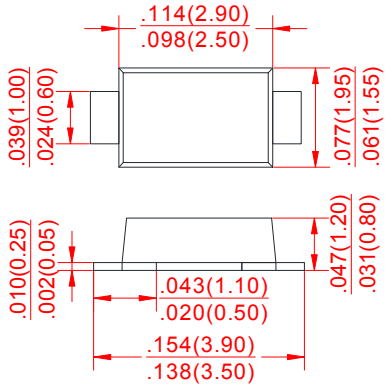
VOLTAGE RANGE 50 to 1000 Volts

CURRENT 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℃/10S at terminals
- Component in accordance to ROHS 2002/95/1 and WEEE 2002/96/EC

SOD-123FL



Dimensions in inches and (millimeters)

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℃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℃	I_R	5.0							μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 125℃	I_R	50							μA
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							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							℃

Notes:

1.Reverse Recovery Test Conditions:If=0.5A,Ir=1.0A,Irr=0.25A.

2.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.

3.Thermal Resistance from Junction to Ambient at. 5.0×5.0mm^2 copper pad areas.

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CURRENT	**1.0 Ampere**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

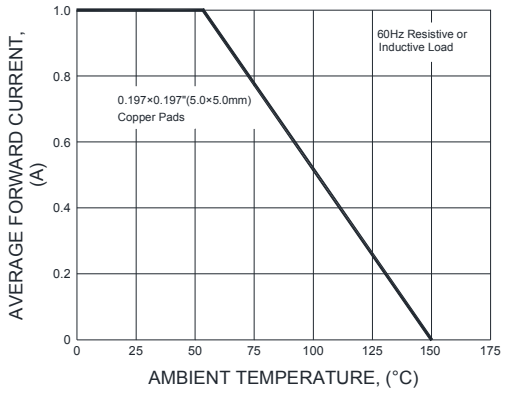

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

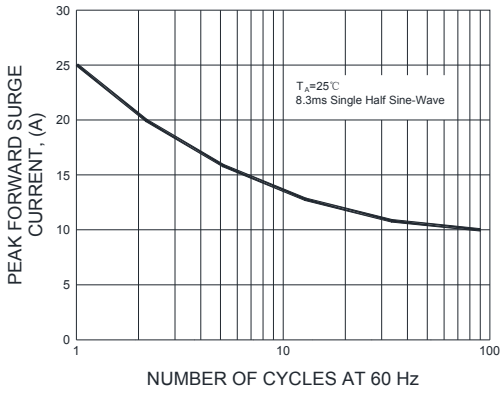

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

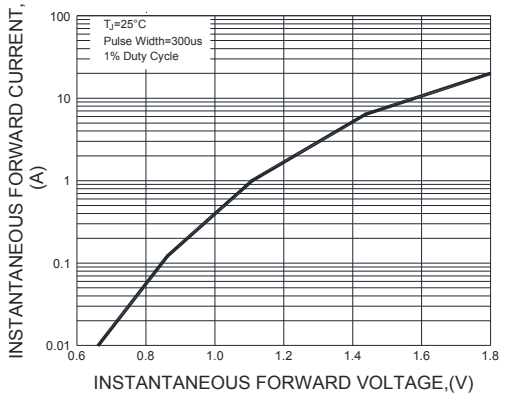

FIG.4-TYPICAL REVERSE CHARACTERISTICS

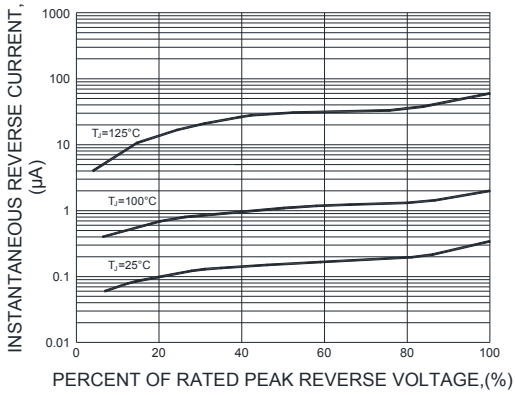

FIG.5-TYPICAL JUNCTION CAPACITANCE