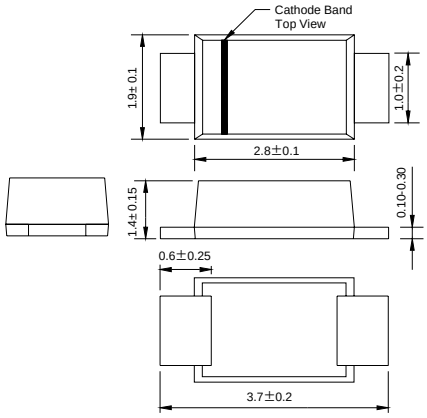
F1A THRU F1M

1.0AMP SURFACE MOUNT FAST RECOVERY RECTIFIER

Features

- Glass passivated die construction
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed: 260℃/10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- Plastic material-UL flammability 94V-0

SOD - 123FL



Dimensions in millimeters

Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	F1A	F1B	F1D	F1G	F1J	F1K	F1M	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current @T_A =30℃	I_O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Forward Voltage per element @IF=1.0A	V_{FM}	1.3							V
Peak Reverse Current @T_A =25℃ At Rated DC Blocking Voltage @T_A =100℃	I_R	5.0 100							uA
Maximum reverse recovery time (NOTE 1)	trr	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	15							pF
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note:1. Measured with IF=0.5A, IR=1A, Irr=0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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FIG. 1- FORWARD CURRENT DERATING CURVE

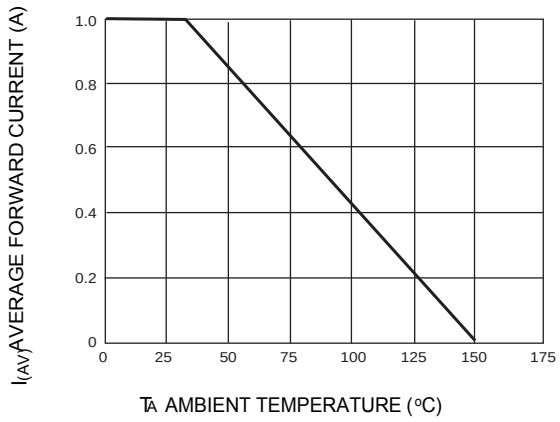

FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

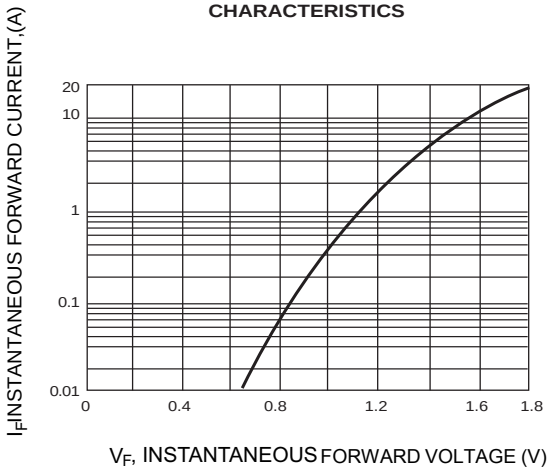

FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

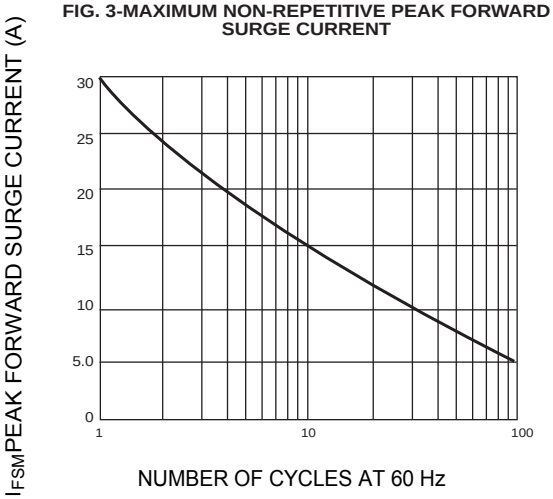
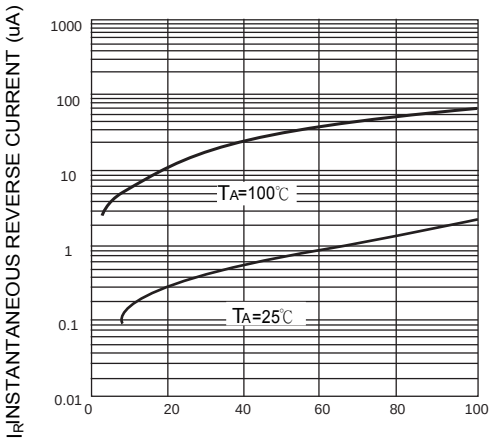
FIG. 4-TYPICAL REVERSE CHARACTERISTICS