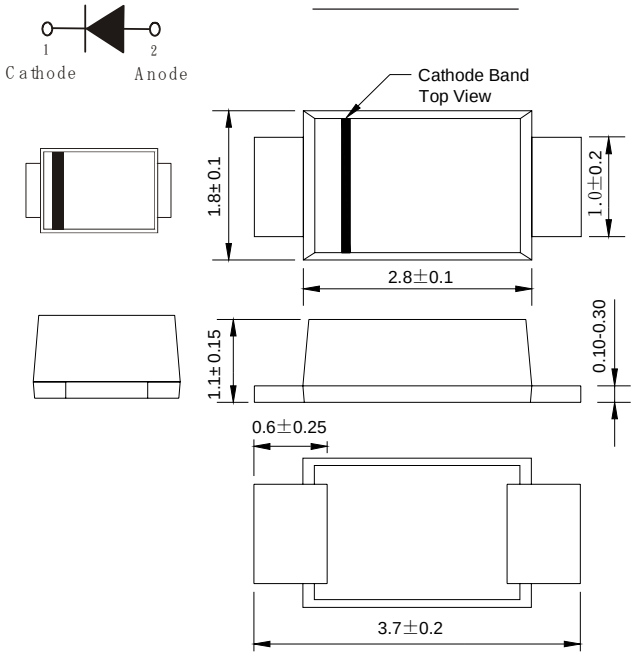
FEATURES

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering：
  260℃/10 seconds at terminals
- Component in accordance to
  RoHS 2002/95/1 and WEEE 2002/96/EC

SOD-123FL



Dimensions in millimeters

MECHANICAL DATA

Case: JEDEC SOD-123FL molded plastic body over glass passivated chip

Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D

Polarity: Laser band denotes cathode end

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(TA = 25 C unless otherwise noted)

	Symbol	F1M-3K-46M	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	25	A
Maximum instantaneous forwad voltage at 1.0A	V_F	1.3	V
Maximum DC reverse current T_A = 25 ℃ at Rated DC blocking voltage T_A = 100℃	I_R	5.0 50	μA
Maximum reverse recovery time at I_F = 0.5 A , I_R = 1.0 A , I_{rr} = 0.25 A	t_{rr}	500	nS
Typical junction capacitance at 4.0 V ,1MHz	C_J	15	p F
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150	℃

RATING AND CHRACTERISTIC CURVES F1A Thru F1M

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

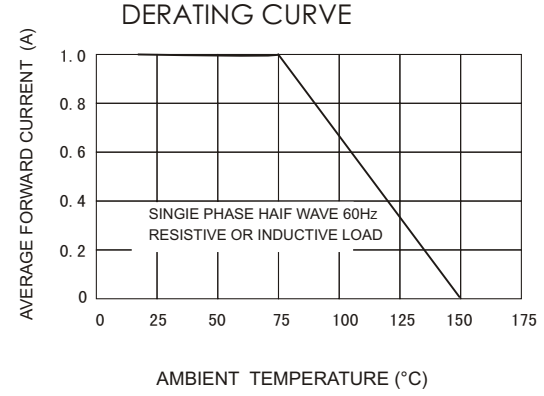


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

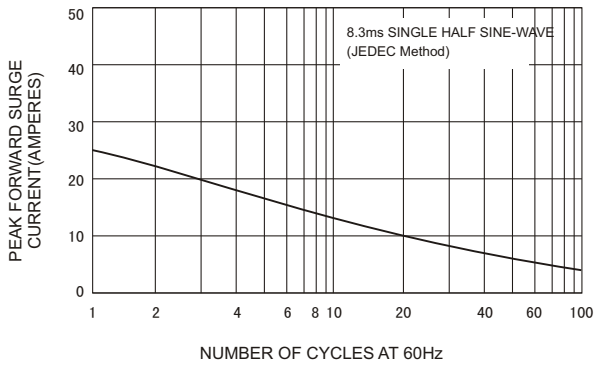


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

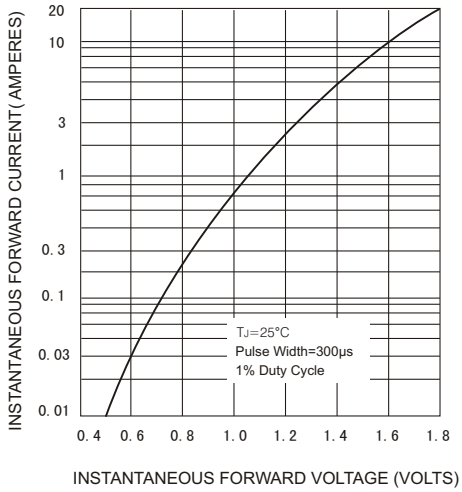


FIG.4-TYPICAL REVERSE CHARACTERISTICS

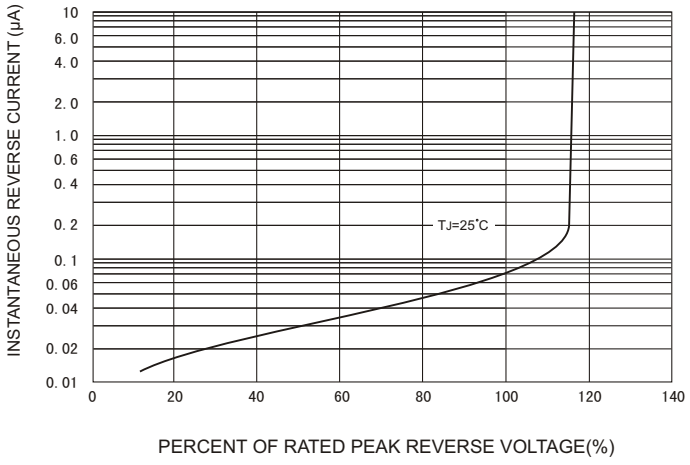


FIG.5-TYPICAL JUNCTION CAPACITANCE

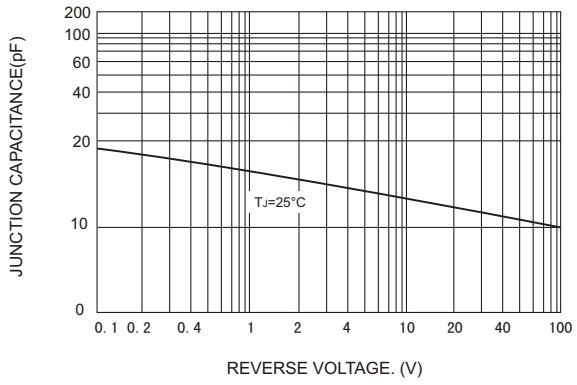
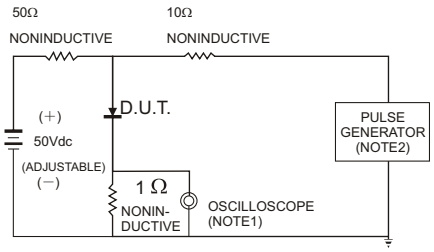
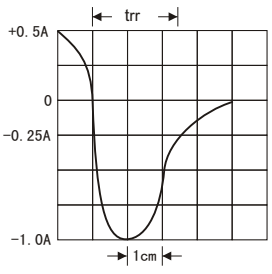


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1.Rise Time=7ns max. input Impedance=1 megohm 22pF
2.Rise Time=10ns max. source Impedance =50 ohms



SET TIME BASE FOR 50/100 ns/cm