

FEATURES

- Glass passivated device
- Ideal for surface mouted applications
- Low leakage current
- Metallurgically bonded construction
- High temperature soldering:
/10 seconds at terminals

Mechanical Data

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

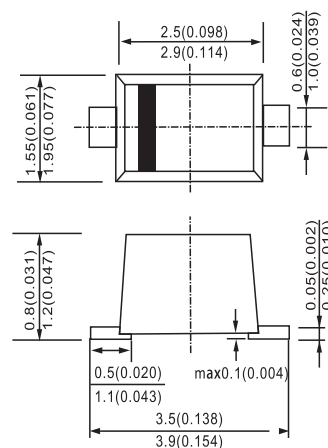
Terminals:Solder Plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.003 ounces, 0.01 gram

Mounting position: Any

SOD-123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single hase,half wave,60Hz,resistive or inductive load.For capacitive load,derate current by 20%.

ABSOLUTE RATINGS

		SOD1F1	SOD1F2	SOD1F4	SOD1F6	SOD1F8	SOD1F10	UNITS
Device marking code		FB	FD	FG	FJ	FK	FM	
Maximum recurrent peak reverse voltage	V _{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	100	200	400	600	800	1000	V
Maximum average forward rectified current T _A =65 (NOTE 1)	I _(AV)	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load T _L =25	I _{FSM}	25						A
Typical thermal resistance (NOTE 2)	R _{jθA}	180						K/W
Maximum reverse recovery time (NOTE 3)	t _{rr}	150			250	500		ns
Operating temperature range	T _J	- 55 --- + 150						
Storage temperature range	T _{STG}	- 55 --- + 150						

NOTES:1.Averaged over any 20 ms period.

2. Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.

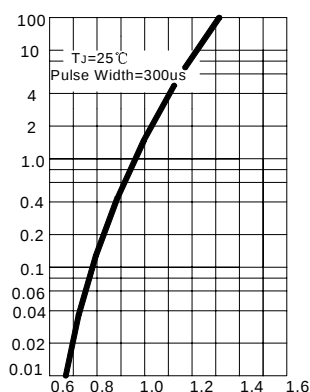
3.Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.

RATINGS AND CHARACTERISTIC CURVES

SOD1F1 THRU SOD1F10

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

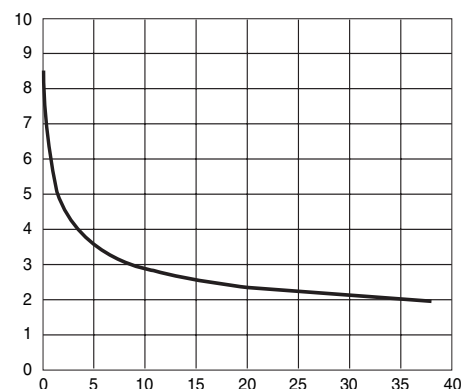
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE,V

FIG.2 – TYPICAL JUNCTION CAPACITANCE

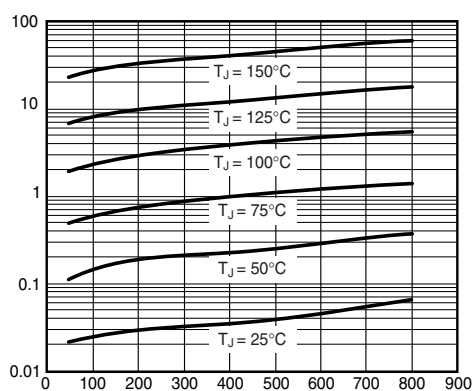
CAPACITANCE, pF



REVERSE VOLTAGE,VOLTS

FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

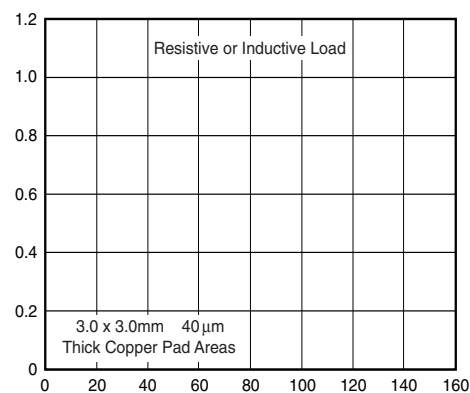
INSTANTANEOUS REVERSE CURRENT
 μ AMPERES



INSTANTANEOUS REVERSE VOLTAGE,V

FIG.4 – FORWARD DERATING CURVE

AVERAGE FORWARD CURRENT,
AMPERES



AMBIENT TEMPERATURE, $^\circ\text{C}$