

SURFACE MOUNT RECTIFIERS

REVERSE VOLTAGE: 100 - 1000 V
CURRENT: 1.0 A

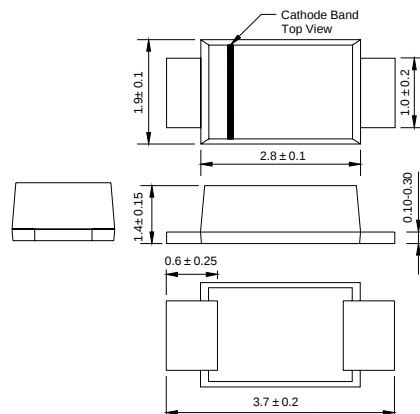
FEATURES

Glass passivated device
 Ideal for surface mounted applications
 Low leakage current
 Metallurgically bonded construction
 High temperature soldering:
 250 /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 pulse, 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 _{θJA}	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.

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

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

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ.	Max.	Unit
Maximum instantaneous (NOTE 4) forward voltage at 1.0A	V_F	-	-	1.3	V
Maximum DC reverse current @ $T_A=25$ at rated DC blockjng voltage @ $T_A=125$	I_R	- -	- -	5.0 50	μA
Typical junction capacitance (NOTE 5)	C_j	-	4	-	pF

NOTES: 4.Pulse test:300 μs pulse width,1% duty cycle.

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5.Measured at 1.0MHz and applied average voltage of 4.0V DC.

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

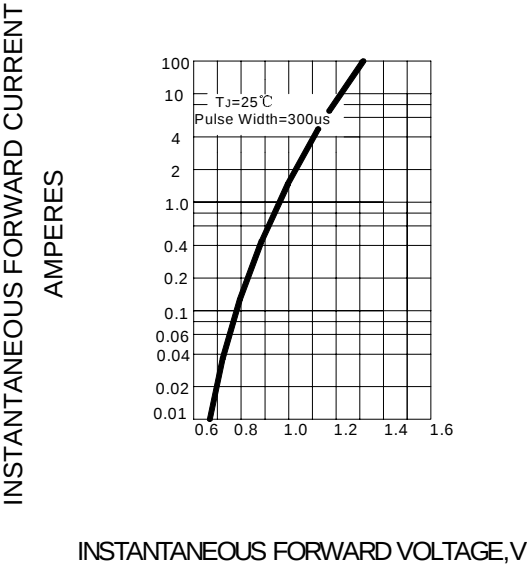


FIG.2 – TYPICAL JUNCTION CAPACITANCE

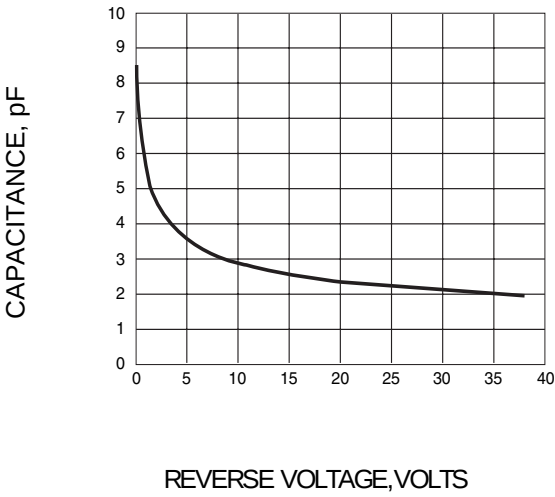


FIG.3 – TYPICAL INSTANTANEOUS
REVERSE CHARACTERISTICS

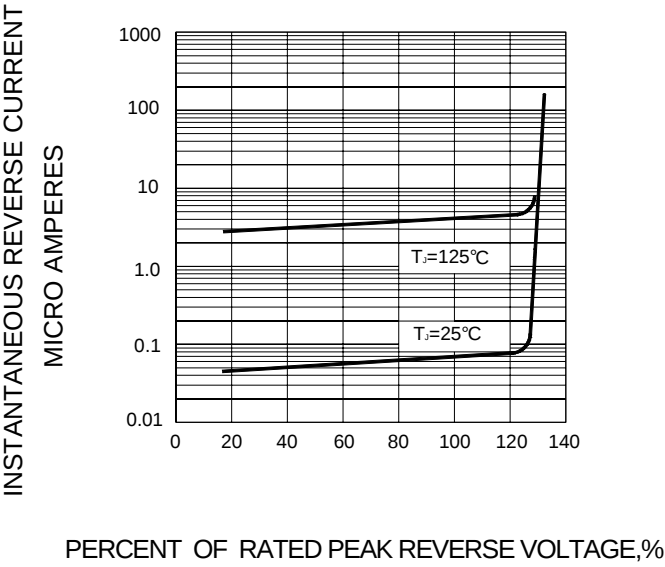


FIG.4 – FORWARD DERATING CURVE

