



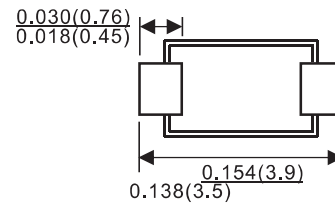
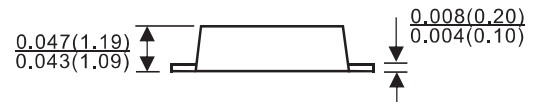
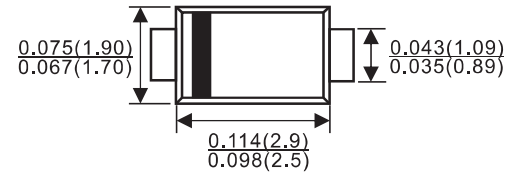
Features

- ✧ Glass passivated device
- ✧ Ideal for surface mouted applications
- ✧ Low leakage current
- ✧ Metallurgically bonded construction
- ✧ High temperature soldering:
250°C/10 seconds at terminals

REVERSE VOLTAGE: 100 - 1000 V

CURRENT: 1.0 A

SOD-123FL



Dimensions in inches and(millimeters)

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: 0.0008 ounces, 0.022 gram
- ✧ Mounting position: Any

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

Parameter	Symbol	RS07B	RS07D	RS07G	RS07J	RS07K	RS07M	UNITS
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 $T_A=65^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_L=25^\circ\text{C}$	I_{FSM}	20						A
Typical thermal resistance (NOTE 2)	$R_{j\theta A}$	180						K/W
Maximum reverse recovery time (NOTE 3)	t_{rr}	150			250	500		ns
Operating temperature range	T_j	- 55 --- + 150						°C
Storage temperature range	T_{STG}	- 55 --- + 150						°C

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



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 @ $T_A=25^{\circ}\text{C}$ at rated DC blockjng voltage @ $T_A=125^{\circ}\text{C}$	I_R	-	-	10 50	μA
Typical junction capacitance (NOTE 5)	C_j	-	4	-	pF

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

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



Ratings AND Characteristic Curves

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

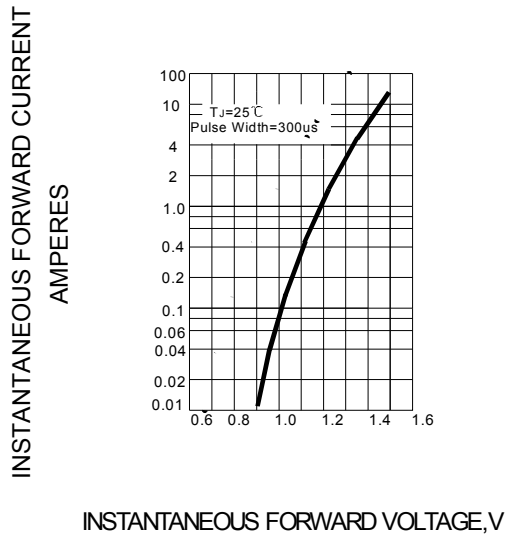


FIG.2 – TYPICAL JUNCTION CAPACITANCE

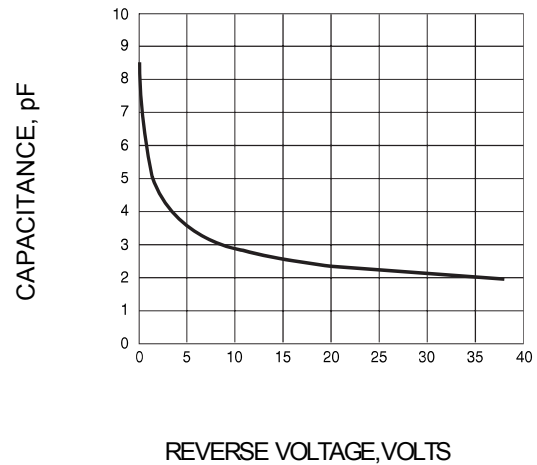


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

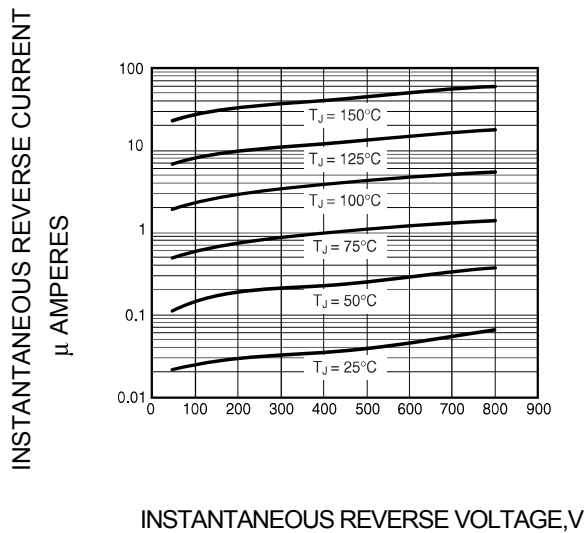
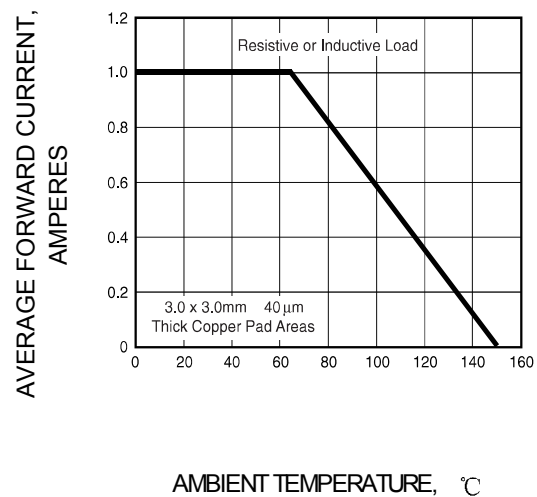


FIG.4 – FORWARD DERATING CURVE



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-123FL	3000/REEL	90000	40X20X22	5.00	4.00