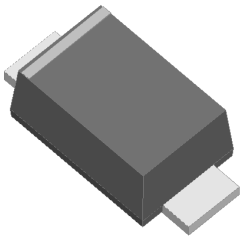
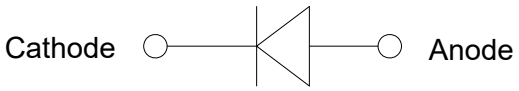
RS1010FL

03-JUN-2017

Surface Mount Fast Recovery Rectifier

SOD-123FL
RS1010FL





Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Fast switching for fast recovery
- High forward surge capability

Mechanical Data

- Package: SOD-123FL
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

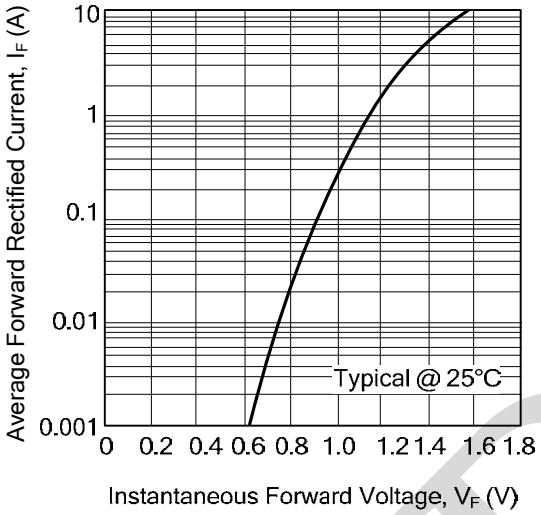
■Maximum Ratings (T_a=25℃ Unless otherwise specified）

Parameter	Symbols	RS1010FL	Units
Device Marking Code		F7	
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	$I_{(AV)}$	1.0	A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A	Trr	500	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30	A
I^2t rating for fusing (1ms< t < 8.3ms)	I^2t	3.7	A^2S
Maximum Forward Voltage at 1.0A and 25℃	V_F	1.3	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=100 °C	I_R	5 50	μA
Typical Junction Capacitance（Note1）	Cj	9	pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C
Typical thermal resistance (Note 2)	RθJ-A	68	°C/W

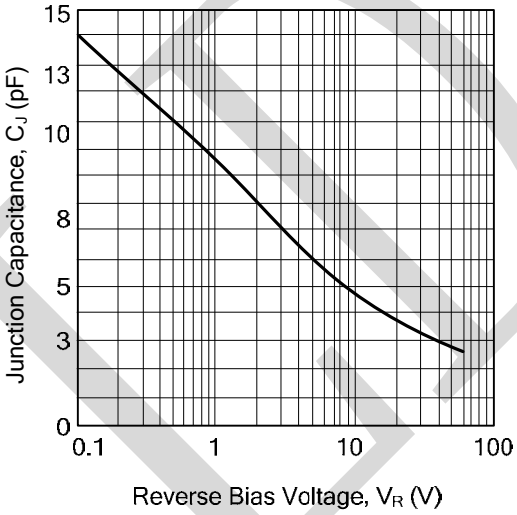
Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.
2. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

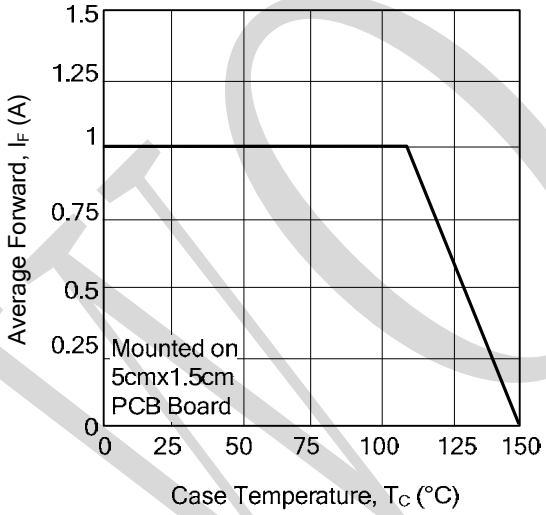
Typical Forward Characteristics



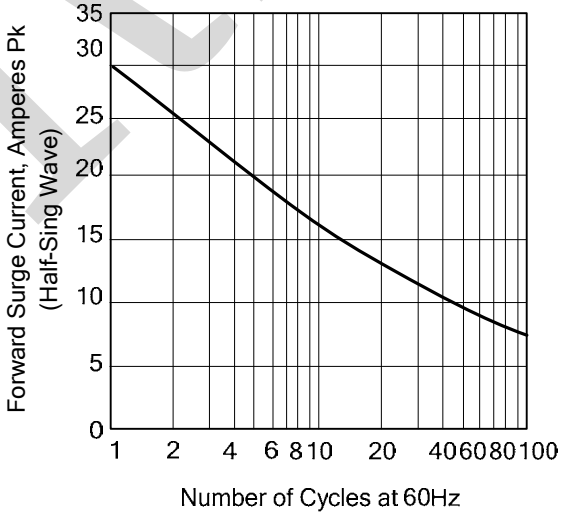
Typical Junction Capacitance



Forward Current Derating Curve

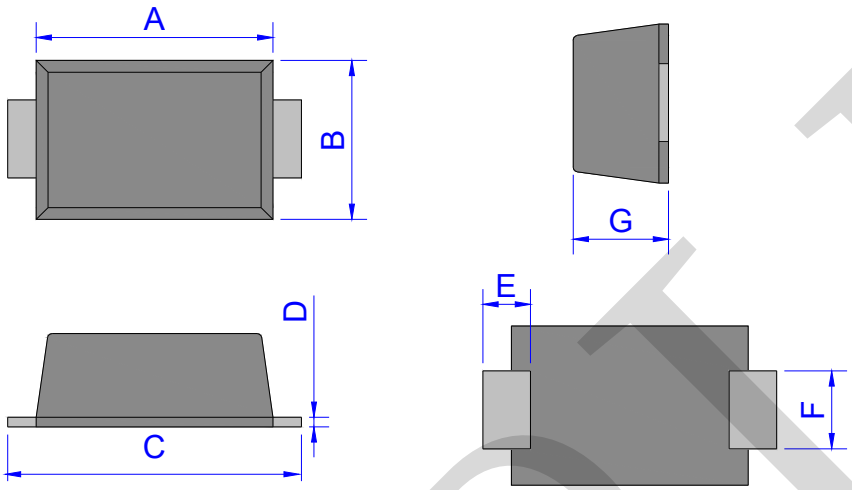


Maximum Non-Repeitive Surge Curve



PACKAGE OUTLINE DIMENSIONS

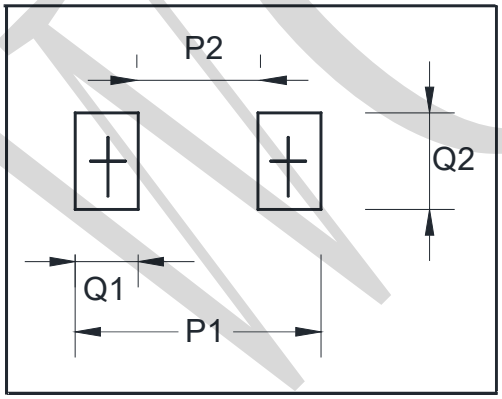
Note:unit mm(Mil)



SOD-123FL Mechanical Data

UNIT		A	B	C	D	E	F	G
mm	max	3.0	2.0	3.95	0.25	0.9	1.2	1.35
	min	2.6	1.6	3.45	0.1	0.3	0.8	0.95
mil	max	118.1	78.7	155.5	9.8	35.4	47.2	53.1
	min	102.4	63.0	135.8	3.93	11.8	31.5	37.4

SOD-123FL Suggested Pad Layout



UNIT		P1	P2	Q2	Q2
mm	min	3.9	1.9	1.0	1.05
mil	min	153.5	74.8	39.3	41.3