

Features

- High Breakdown Voltage
- Low Turn-on Voltage
- Guard Ring Construction for Transient Protection


SOD-123
Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Peak Repetitive Reverse Voltage	VRRM	100	V
Working Peak Reverse Voltage	VRWM		
DC Blocking Voltage	VR		
Forward Current	IF	150	mA
Peak Forward Surge Current@ tp < 1.0s, Duty Cycle < 50% (Note.1)	IFM	350	
Forward Surge Forward Current @ tp=10ms (Note.1)	IFSM	750	
Power Dissipation	Pd	200	mW
Thermal Resistance Junction to Ambient	RθJA	420	°C/W
		370	
Junction Temperature	TJ	150	°C
Storage Temperature range	Tstg	-55 to 150	

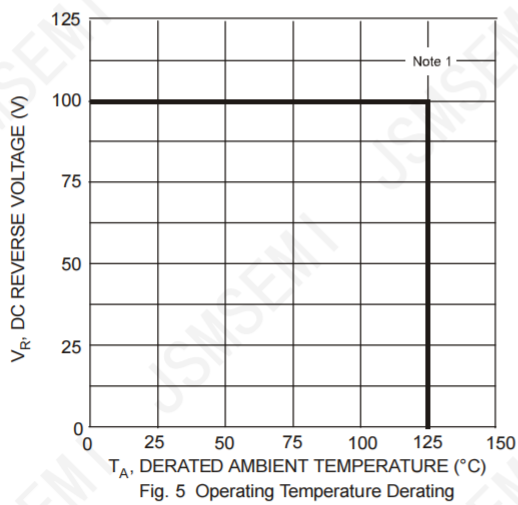
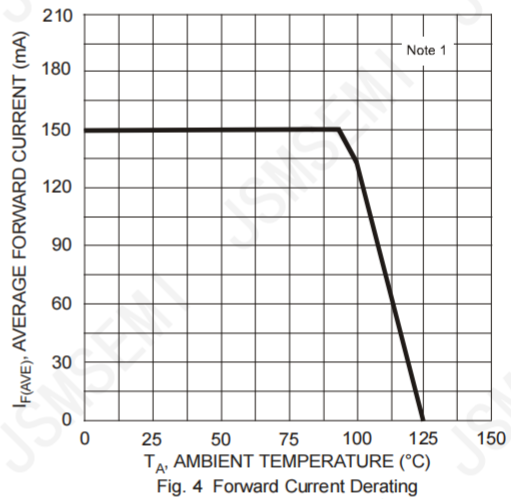
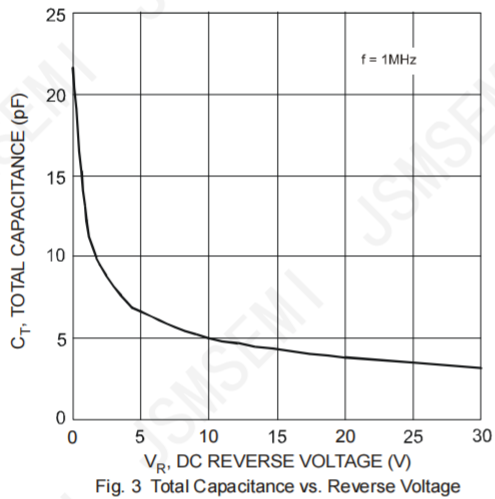
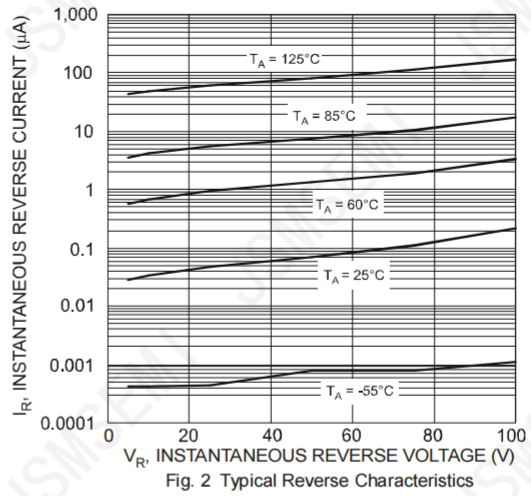
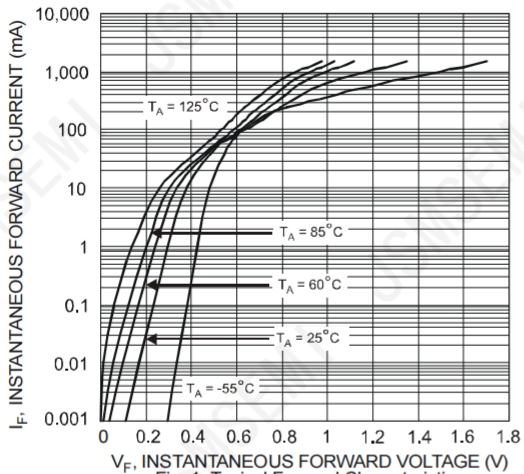
Note.1: Part mounted on FR-4 board with recommended pad layout

Note.2: Part mounted on Polyimide board with recommended pad layout

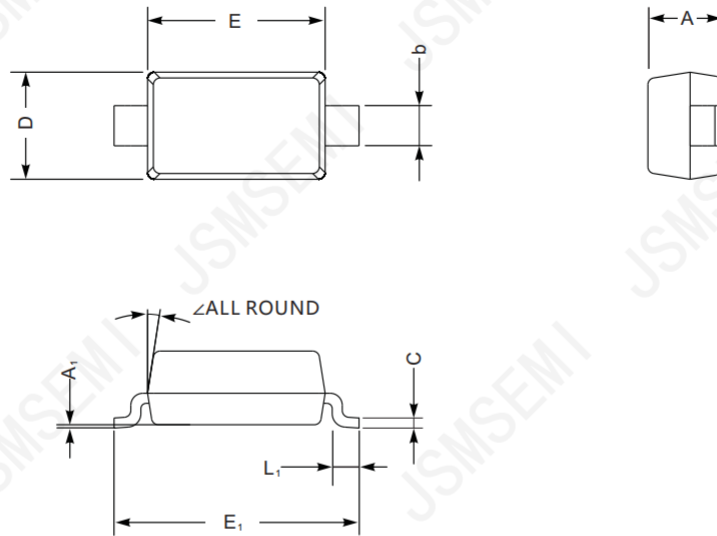
Electrical Characteristics Ta = 25 °C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	VR	IR= 100 uA	100			V
Forward voltage	VF	IF= 0.1 mA			0.25	
		IF= 10 mA			0.45	
		IF= 250 mA			1	
Reverse voltage leakage current	IR1	VR= 1.5 V			0.3	uA
	IR2	VR= 10 V			0.5	
	IR3	VR= 50 V			1	
	IR4	VR= 75 V			2	
Total capacitance	CT	VR= 0 V, f= 1 MHz		20		pF
		VR= 1 V, f= 1 MHz		12		

Typical Characteristics



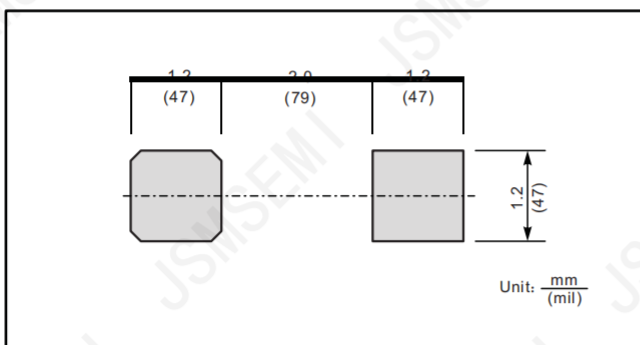
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E ₁	L ₁	b	A ₁	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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