



SOD-123

**Schottky Barrier Diode****FEATURES**

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 16mg/0.00056oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.



1.Cathode 2. Anode

Parameter	Symbols	SD103AW	SD103BW	SD103CW	Units	
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V	
RMS reverse voltage	V_{RMS}	28	21	14	V	
Working Peak Reverse Voltage	V_{DC}	40	30	20	V	
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	13			A	
Maximum Instantaneous Forward Voltage $I_F=20mA$ $I_F=200mA$	V_F	0.37			V	
		0.60				
Power Dissipation	P_D	400			mW	
Reverse current	I_R	$V_R=30V$	5	–	–	uA
		$V_R=20V$	–	5	–	
		$V_R=10V$	–	–	5	
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	300			°C/W	
Reverse voltage $I_R=100uA$	$V_{(BR)}$	SD103AW	40		V	
		SD103BW	30			
		SD103CW	20			
Reverse recovery time $I_F=I_R=200mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$	t_{rr}	10			ns	
Forward Continuous Current	I_{FM}	350			mA	
Total capacitance $V_R=0V, f=1MHz$	C_{tot}	28			pF	
Junction temperature	T_j	125			°C	
Storage temperature	T_{stg}	-55 ~ +150			°C	

Fig.1 Power Derating Curve

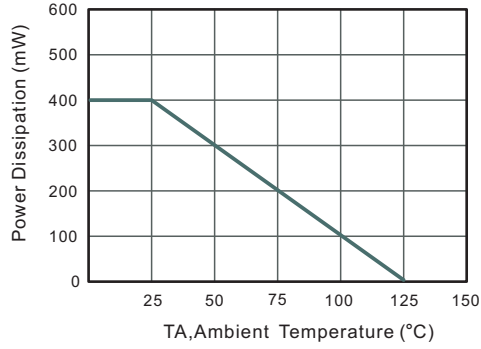


Fig.2 Typical Reverse Characteristics

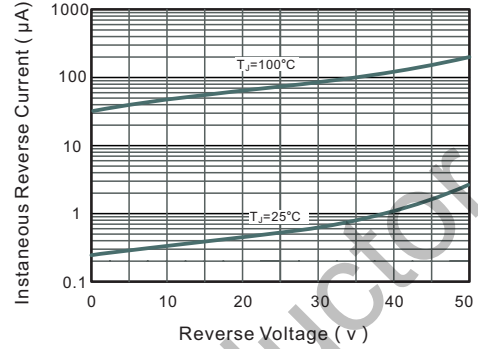


Fig.3 Forward Characteristics

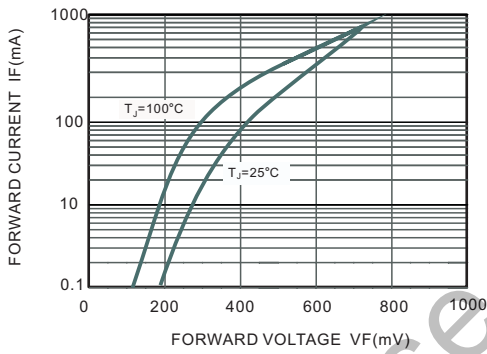


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

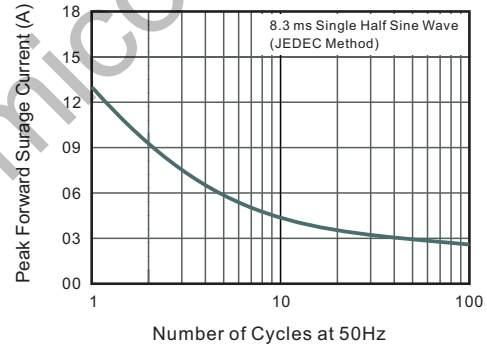


Fig.5 Typical Junction Capacitance

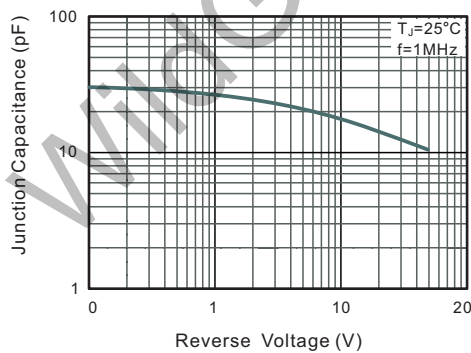
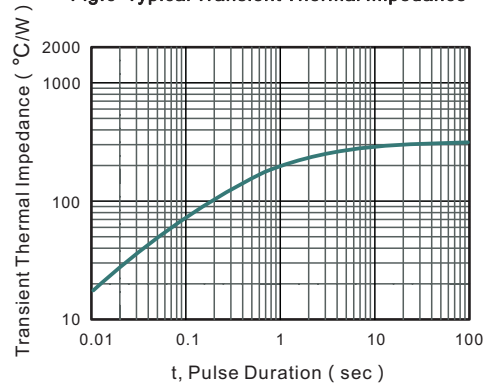


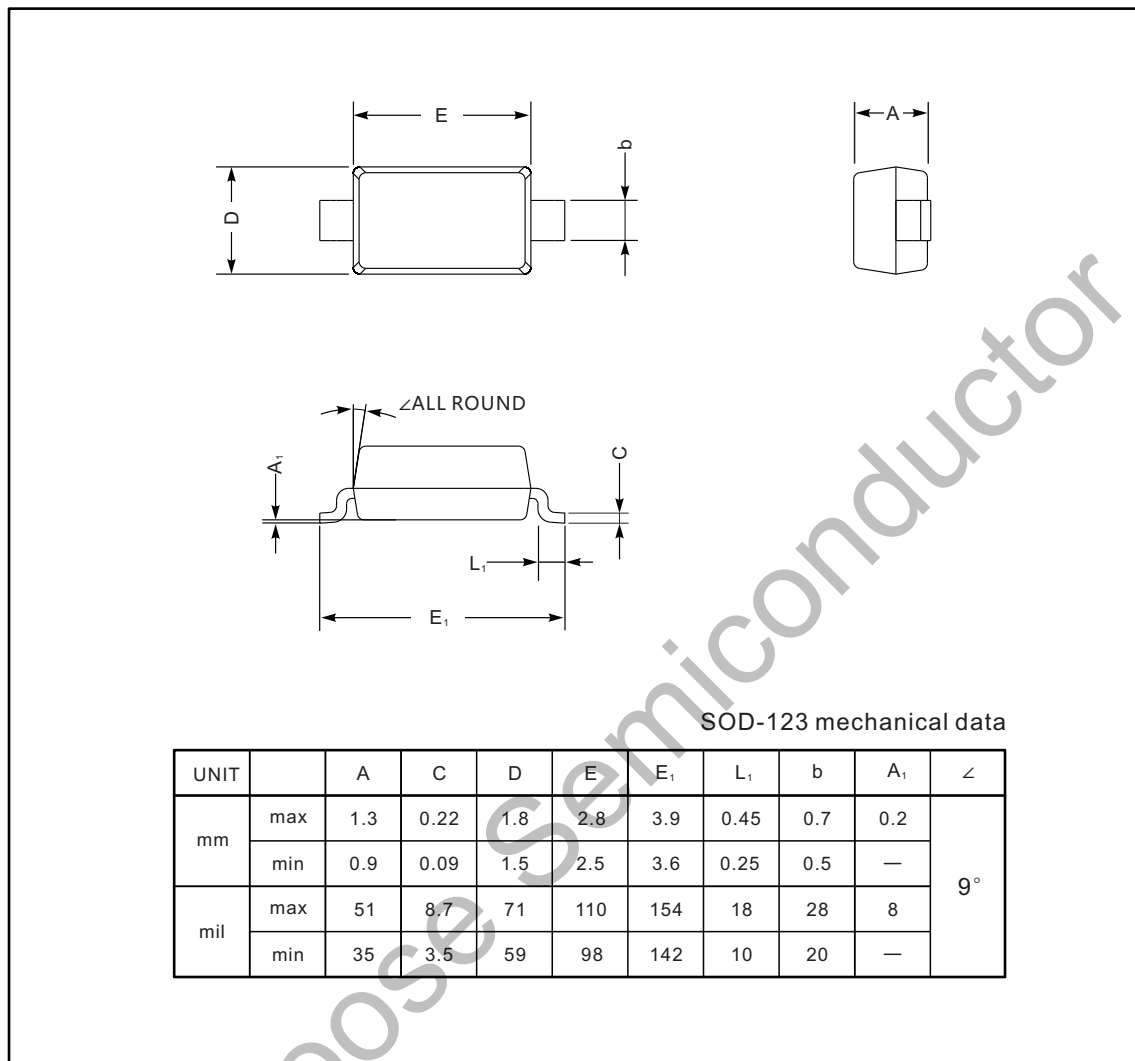
Fig.6 Typical Transient Thermal Impedance



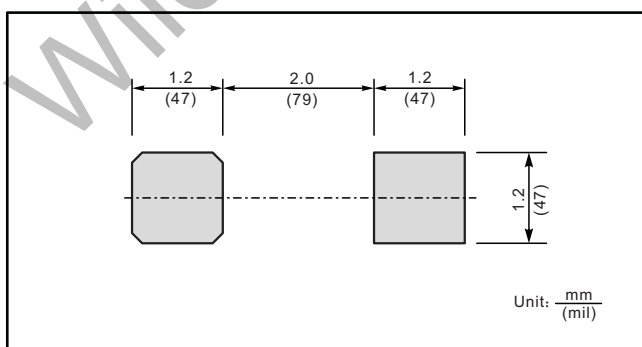
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



The recommended mounting pad size



Marking

Type number	Marking code
SD103AW	S4
SD103BW	S5
SD103CW	S6

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