



## SCHOTTKY BARRIER RECTIFIERS

### FEATURES

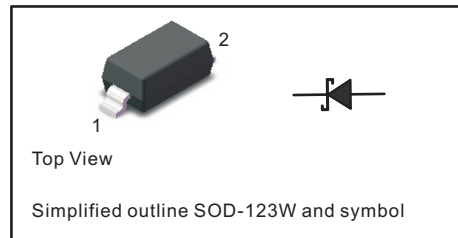
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

### MECHANICAL DATA

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	B0520WA	B0530WA	B0540WA	Units
Peak repetitive peak reverse voltage	$V_{RRM}$	20	30	40	V
RMS reverse voltage reverse voltage (DC)	$V_{RMS}$	14	21	28	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	V
Maximum Average Forward Current at Ta=25°C	$I_O$	0.5			A
Non-repetitive Peak Forward Surge Current @t=8.3ms	$I_{FSM}$	5.5			A
Maximum Instantaneous Forward Voltage $I_F=0.1A$ $I_F=0.5A$	$V_F$	0.330 0.390	0.375 0.430	0.510 0.620	V
Reverse current $V_R=10V$ $V_R=15V$ $V_R=20V$ $V_R=30V$ $V_R=40V$	$I_R$	75 — 250 — —	— 20 — 130 —	— — 10 — 20	uA
Thermal resistance junction to ambient	$R_{\theta JA}$	500			°C/W
Junction temperature	$T_j$	-55 ~ +125			°C
Storage temperature	$T_{stg}$	-55 ~ +150			°C



Fig.1 Forward Current Derating Curve

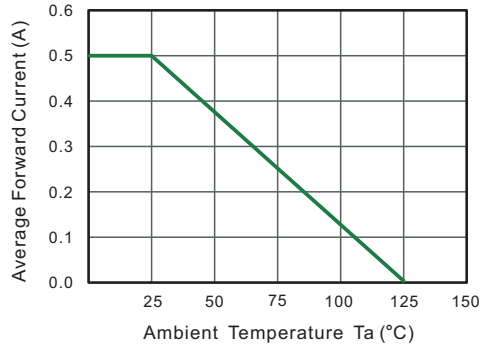


Fig.2 Typical Reverse Characteristics

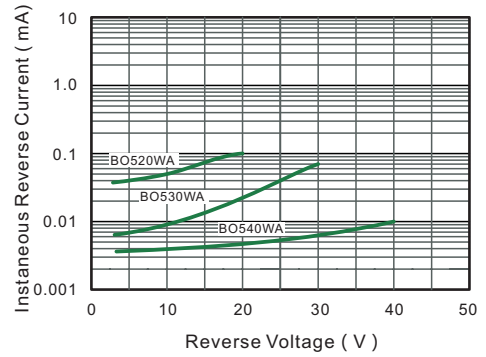


Fig.3 TYPICAL FORWARD VOLTAGE

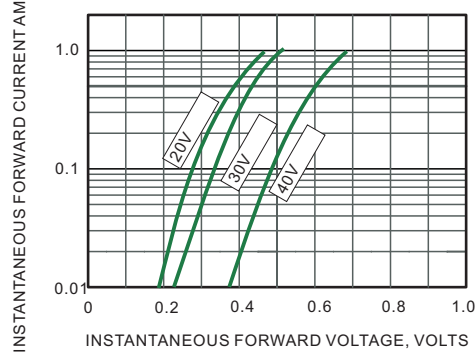


Fig.4 Typical Junction Capacitance

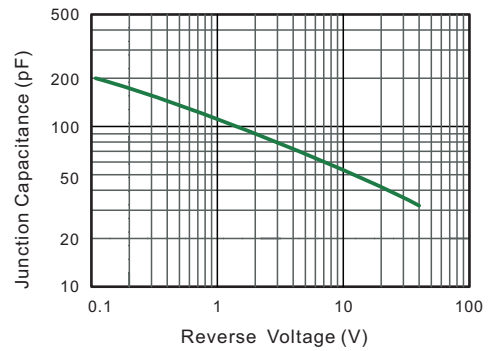
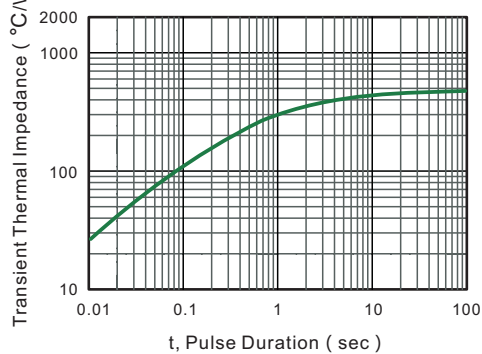


Fig.5 Typical Transient Thermal Impedance

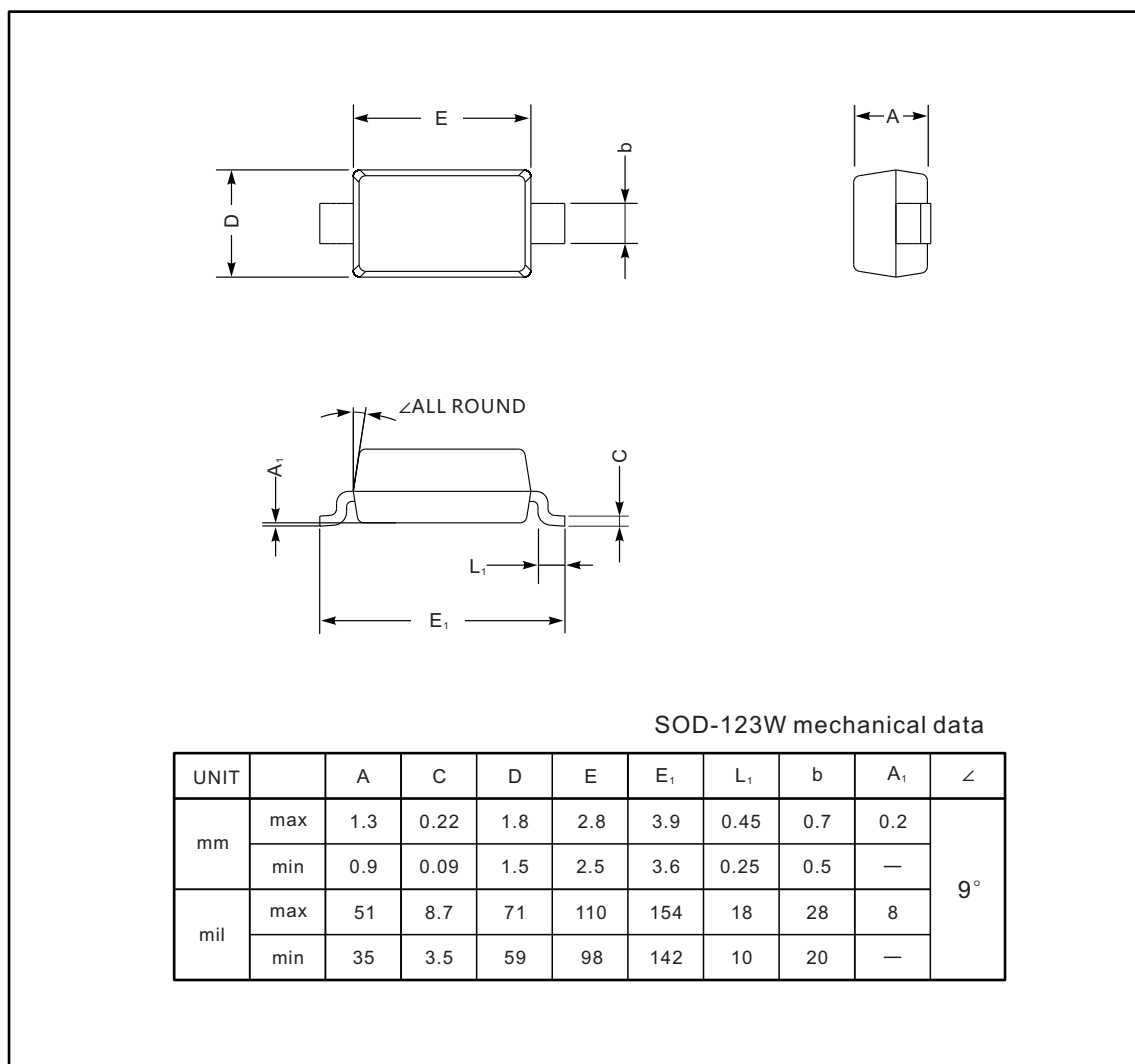




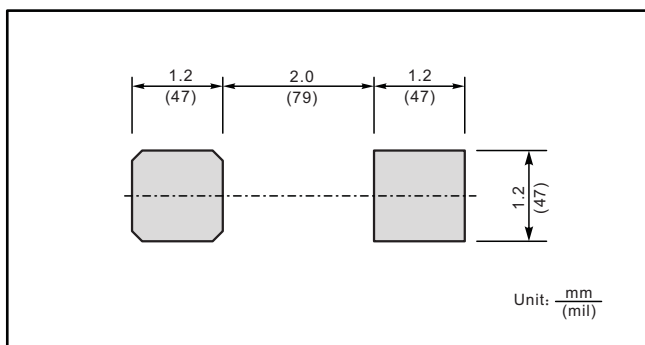
**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads

SOD-123W



**The recommended mounting pad size**



**Marking**

Type number	Marking code
B0520WA	SD
B0530WA	SE
B0540WA	SF

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