SCHOTTKY BARRIER RECTIFIERS

FEATURES

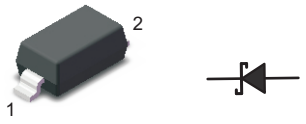
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- High Conductance
- Also Available in Lead Free Version

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



Top View

Simplified outline SOD-123W and symbol

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℃		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

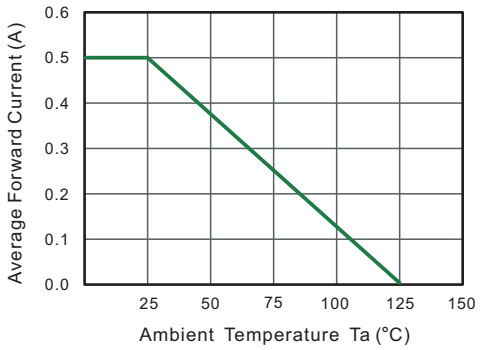


Fig.2 Typical Reverse Characteristics

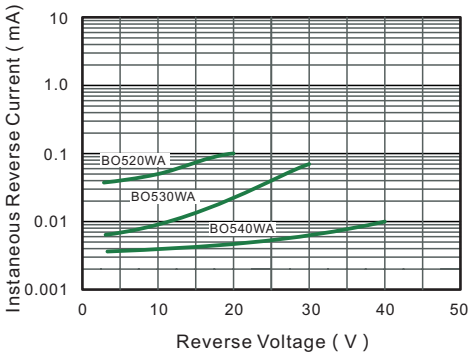


Fig.3 TYPICAL FORWARD VOLTAGE

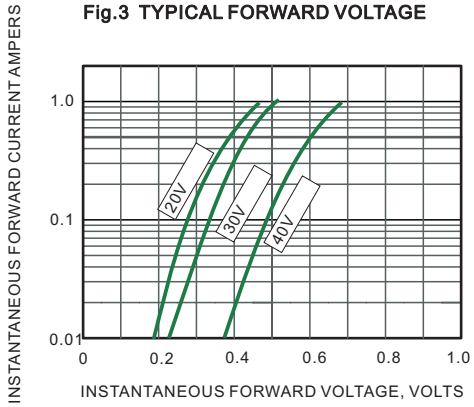


Fig.4 Typical Junction Capacitance

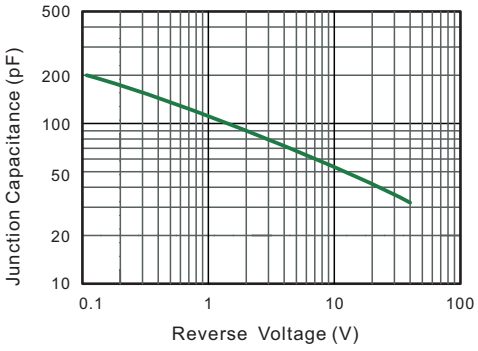
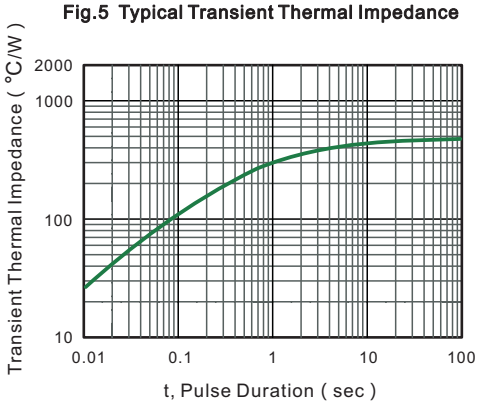


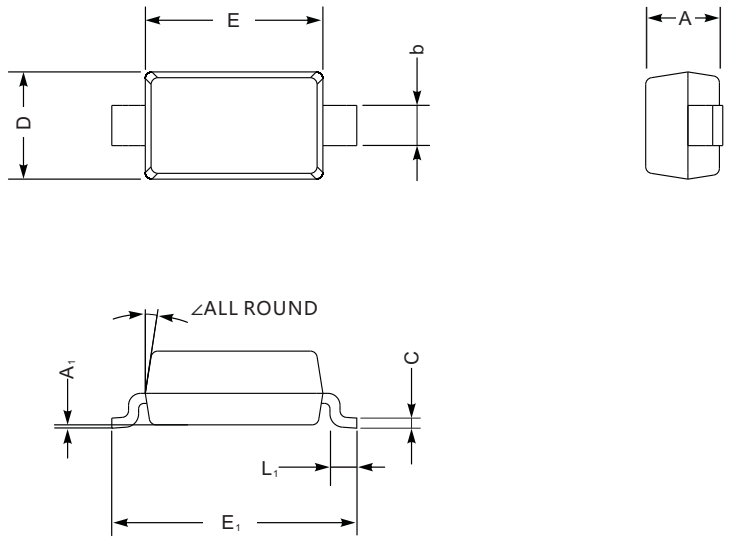
Fig.5 Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

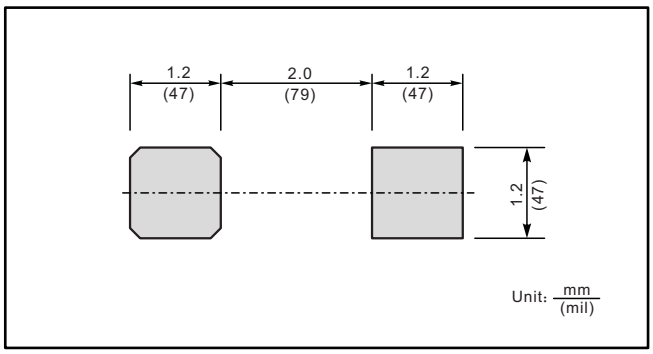
SOD-123W



SOD-123W 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



Marking

Type number	Marking code
B0520WA	SD
B0530WA	SE
B0540WA	SF