

# SD103AWA-AT THRU SD103CWA-AT

## Schottky Barrier Diode

Reverse Voltage - 20 to 40V

Forward Current - 2.0A

### FEATURES

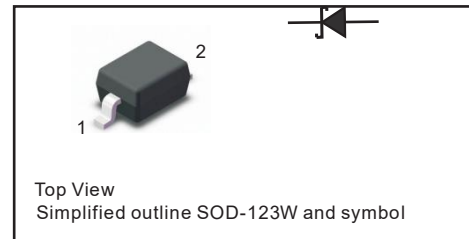
- ◆ Low Forward Voltage Drop
- ◆ Guard Ring Construction for Transient Protection
- ◆ Negligible Reverse Recovery Time
- ◆ Low Capacitance

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

### MECHANICAL DATA

- ◆ Case: SOD-123W
- ◆ 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.

Parameter	Symbols	SD103AWA-AT	SD103BWA-AT	SD103CWA-AT	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)	$I_{FSM}$	2			A
Maximum Instantaneous Forward Voltage $I_F=20mA$ $I_F=200mA$	$V_F$	0.37 0.60			V
Power Dissipation	$P_D$	400			mW
Reverse current SD103AWSAT, $V_R=30V$ SD103BWSAT, $V_R=20V$ SD103CWSAT, $V_R=10V$	$I_R$	5 — —	— 5 —	— — 5	$\mu A$
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	300			°C/W
Reverse voltage $I_R=100\mu A$ SD103AWAT SD103BWAT SD103CWAT	$V_{(BR)R}$	40 30 20			V
Reverse recovery time $I_F=I_R=200mA, I_{rr}=0.1 \times I_R, R_L=100 \Omega$	$t_{rr}$	10			ns
Forward Continuons 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

Dated:09/2019

Rev: 1.0

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## Typical Characteristics Curves

Fig.1 Power Derating Curve

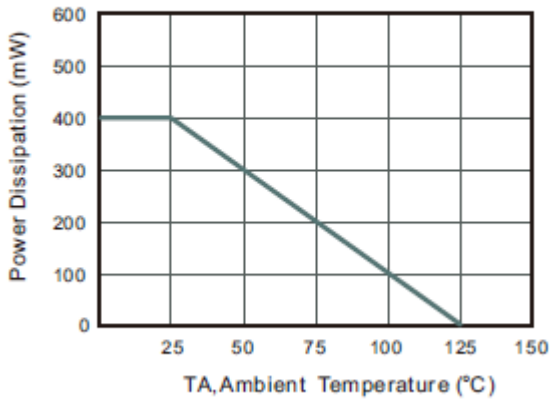


Fig.2 Typical Reverse Characteristics

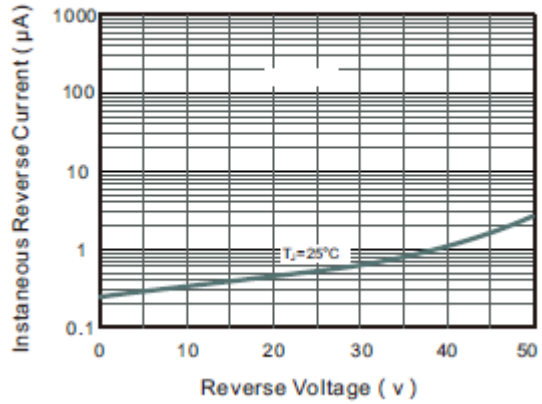


Fig.3 Forward Characteristics

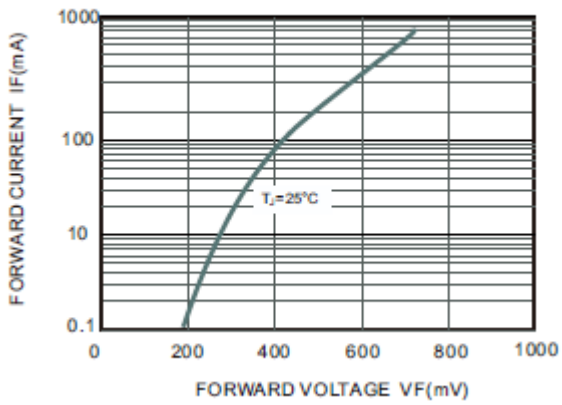


Fig.4 Typical Transient Thermal Impedance

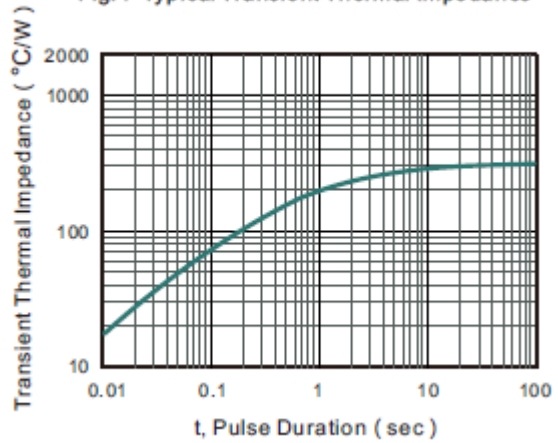
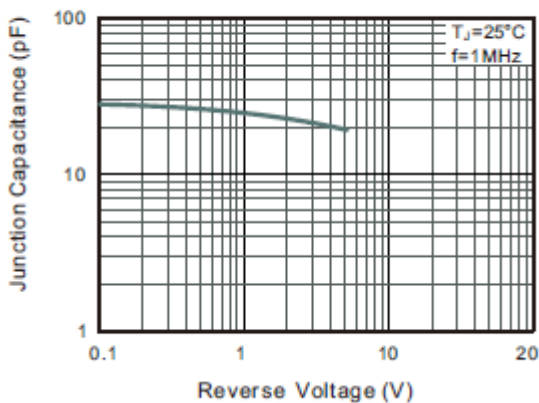


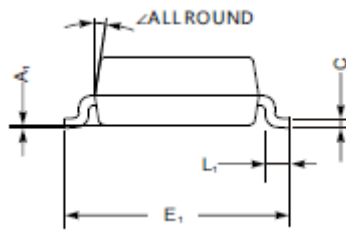
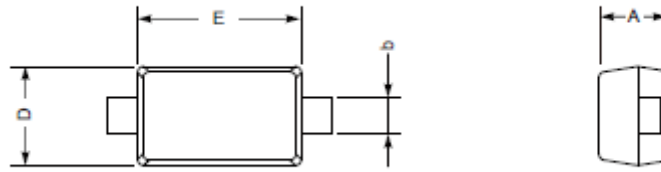
Fig.5 Typical Junction Capacitance



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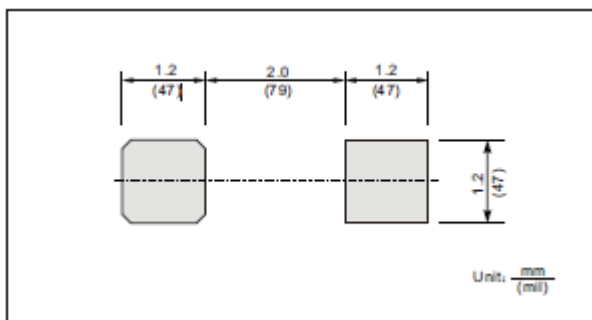
## Package Outline

SOD-123



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

### The recommended mounting pad size



### Marking

Type number	Marking code
SD103AWA-AT	S4
SD103BWA-AT	S5
SD103CWA-AT	S6

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