



BAV19W - BAV21W

High Voltage Switching Diode

FEATURES

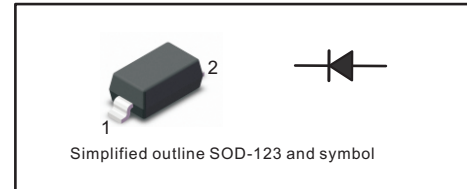
- For surface mounted applications
- Glass Passivated Chip Junction
- Fast reverse recovery time
- Ideal for automated placement
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings at 25 °C

Parameter	Symbols	BAV19W	BAV20W	BAV21W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	120	200	250	V
Maximum RMS voltage	V_{RMS}	100	150	200	V
Continuous Forward Current	I_F	250			mA
Repetitive Peak Forward Current	I_{FRM}	625			mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	1 3 9			A
at 1s at 1ms at 1us					
Total Power Dissipation	P_{tot}	500			mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150			°C

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbols	BAV19W	BAV20W	BAV21W	Units
Reverse Breakdown Voltage at $I_R=100\mu A$	$V_{(BR)R}$	120	200	250	V
Maximum Forward Voltage	V_F	1.00 1.25			V
at 100 mA at 200 mA					
Maximum DC Reverse Current	I_R	0.1 100			μA
$T_a = 25\text{ °C}$ at Rated DC Blocking Voltage $T_a = 150\text{ °C}$					
Typical Junction Capacitance at $V_R=4V, f=1MHz$	C_j	5			pF
Maximum Reverse Recovery Time ⁽¹⁾	t_{rr}	50			ns

(1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

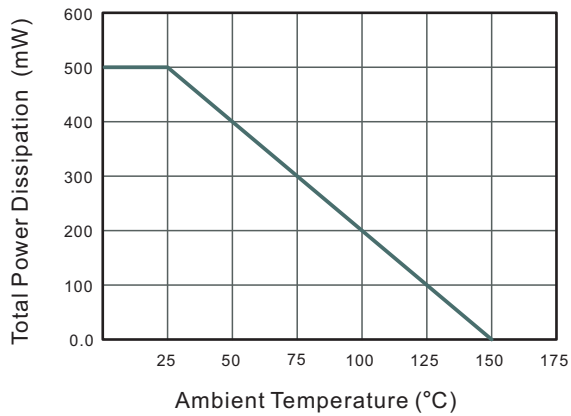


Fig.2 Typical Reverse Characteristics

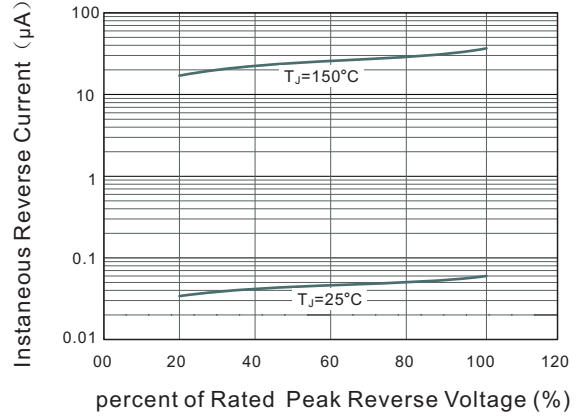


Fig.3 Typical Instantaneous Forward Characteristics

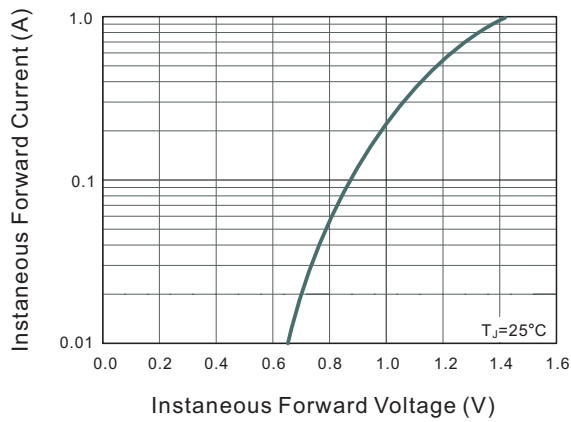
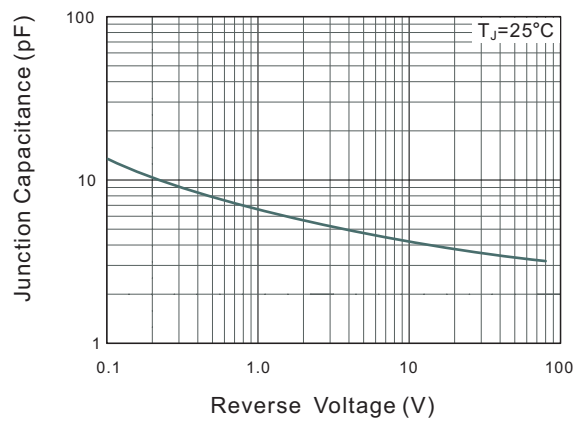


Fig.4 Typical Junction Capacitance



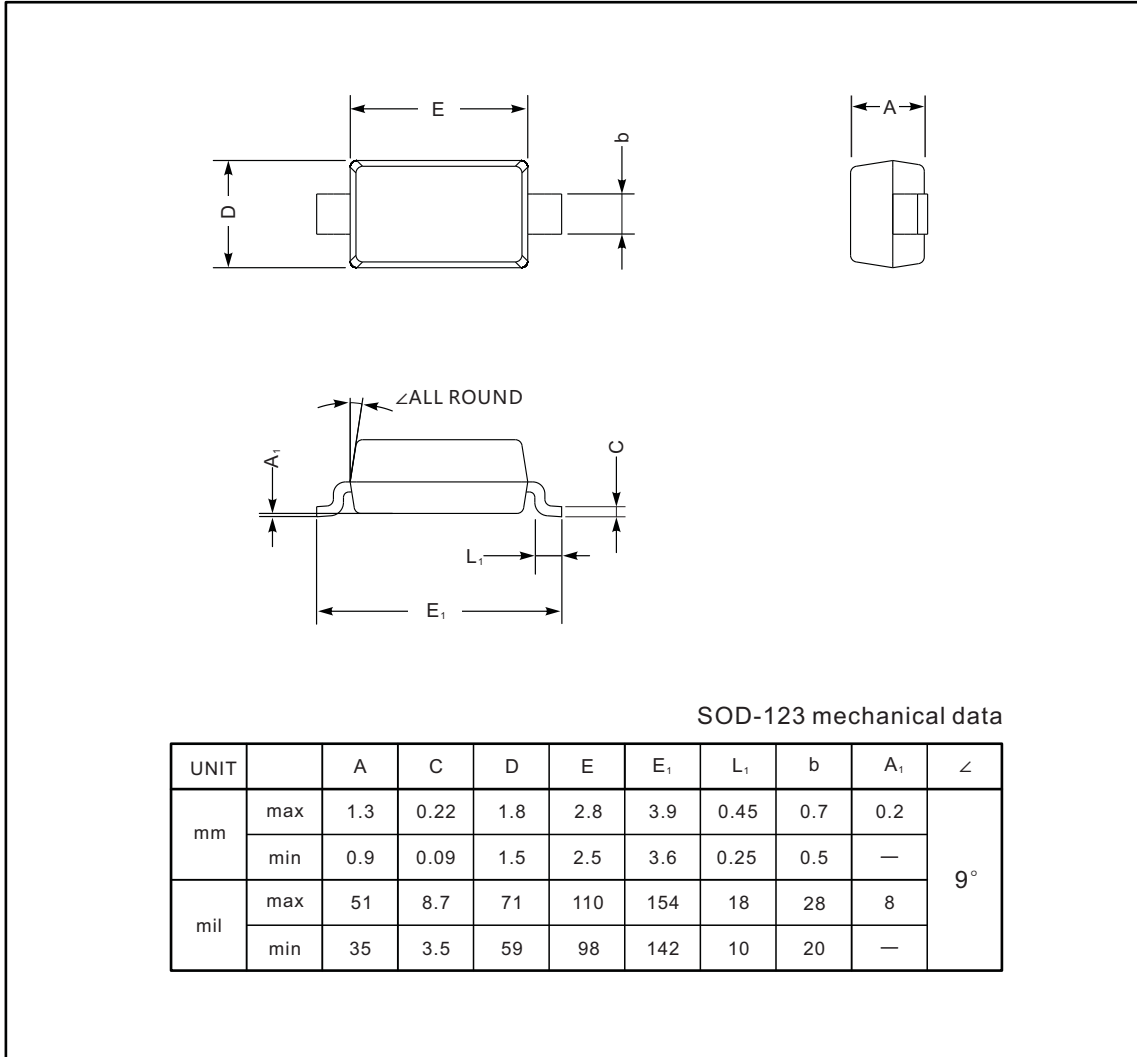


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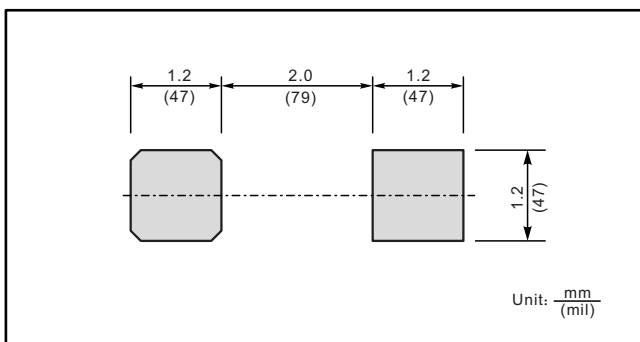
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



The recommended mounting pad size



Marking

Type number	Marking code
BAV19W	A8
BAV20W	T2
BAV21W	T3