

**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-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View  
Simplified outline SOD-323 and symbol

**Absolute Maximum Ratings at 25 °C**

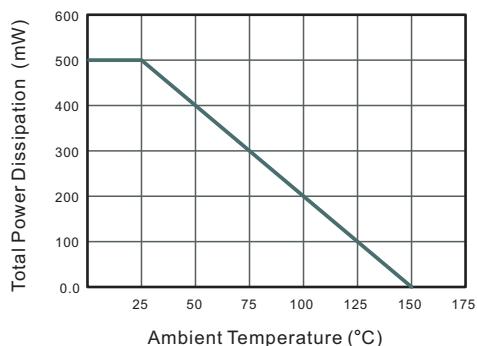
Parameter	Symbols	BAV19WS	BAV20WS	BAV21WS	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	120	200	250	V
Maximum RMS voltage	$V_{RMS}$	100	150	200	V
Continuous Forward Current	$I_F$		250		mA
Repetitive Peak Forward Current	$I_{FRM}$		625		mA
Non-repetitive Peak Forward Surge Current	at 1s at 1ms at 1 us	$I_{FSM}$	1 3 9		A
Total Power Dissipation	$P_{tot}$		500		mW
Operating and Storage Temperature Range	$T_j, T_{stg}$		-55 ~ +150		°C

**Characteristics at  $T_a = 25$  °C**

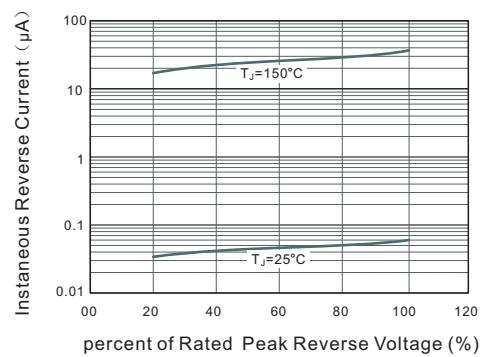
Parameter	Symbols	BAV19WS	BAV20WS	BAV21WS	Units
Reverse Breakdown Voltage at $I_R=100\mu A$	$V_{(BR)R}$	120	200	250	V
Maximum Forward Voltage at 100 mA at 200 mA	$V_F$		1.00 1.25		V
Maximum DC Reverse Current $T_a = 25$ °C at Rated DC Blocking Voltage $T_a = 150$ °C	$I_R$		0.1 100		μA
Typical Junction Capacitance at $V_R=4V$ , $f=1MHz$	$C_J$		5		pF
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$		50		ns

( 1 ) Measured with  $IF = 0.5$  A,  $IR = 1$  A,  $Irr = 0.25$  A

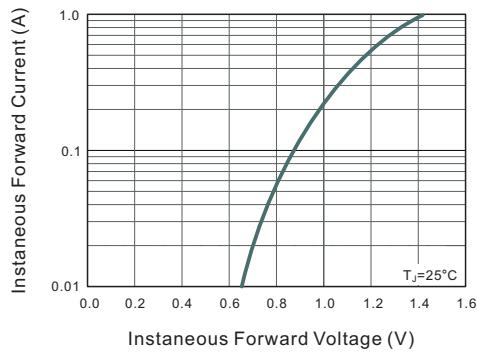
**Fig.1 Forward Current Derating Curve**



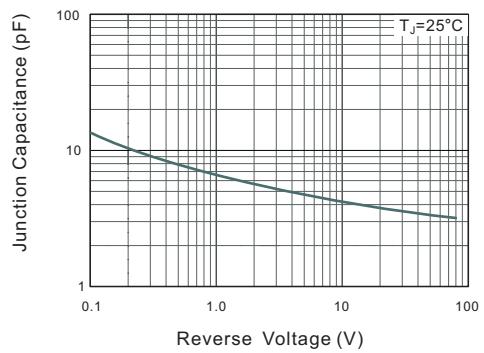
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Instaneous Forward Characteristics**



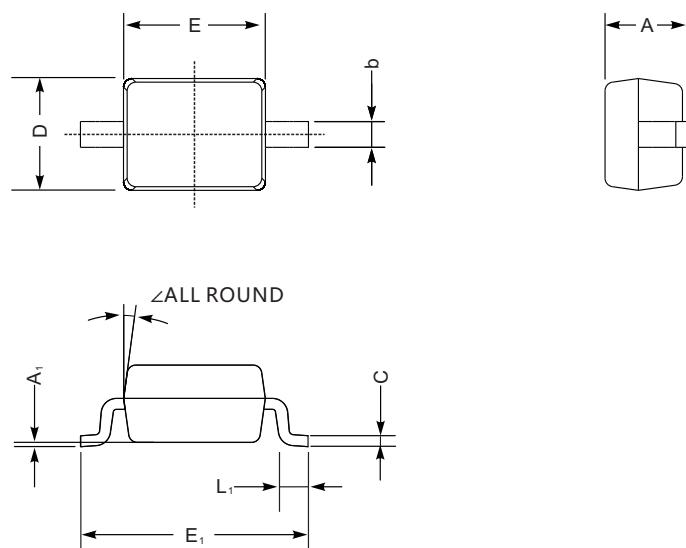
**Fig.4 Typical Junction Capacitance**



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

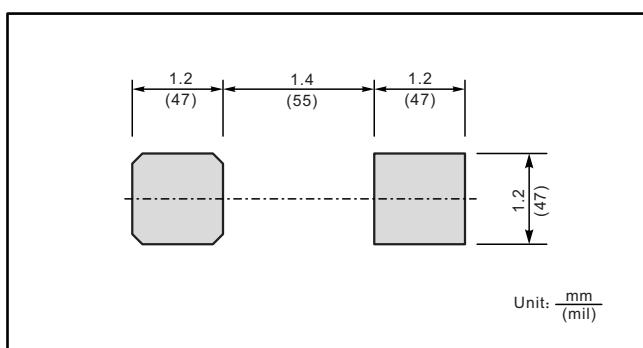
SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	$E_1$	b	$L_1$	$A_1$	$\angle$
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	$9^\circ$
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	$9^\circ$
	min	32	3.1	47	63	100	9.8	7.9	—	

The recommended mounting pad size



Marking

Type number	Marking code
BAV19WS	A8
BAV20WS	T2
BAV21WS	T3