

BAV19WS-BAV21WS

Rev.I Aug.-2025

/ Descriptions

SOD-323
Silicon Diode in a SOD-323 Plastic Package.

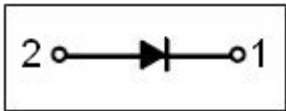
/ Features

Fast switching diodes,HF Product.

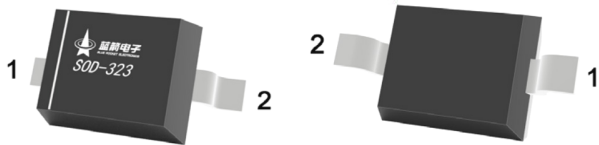
/ Applications

Small signal diode.

/ Equivalent Circuit



/ Pinning



PIN1:Cathode PIN2:Anode

/ Marking

Model	BAV19WS	BAV20WS	BAV21WS
Marking	HA8	HT2	HT3

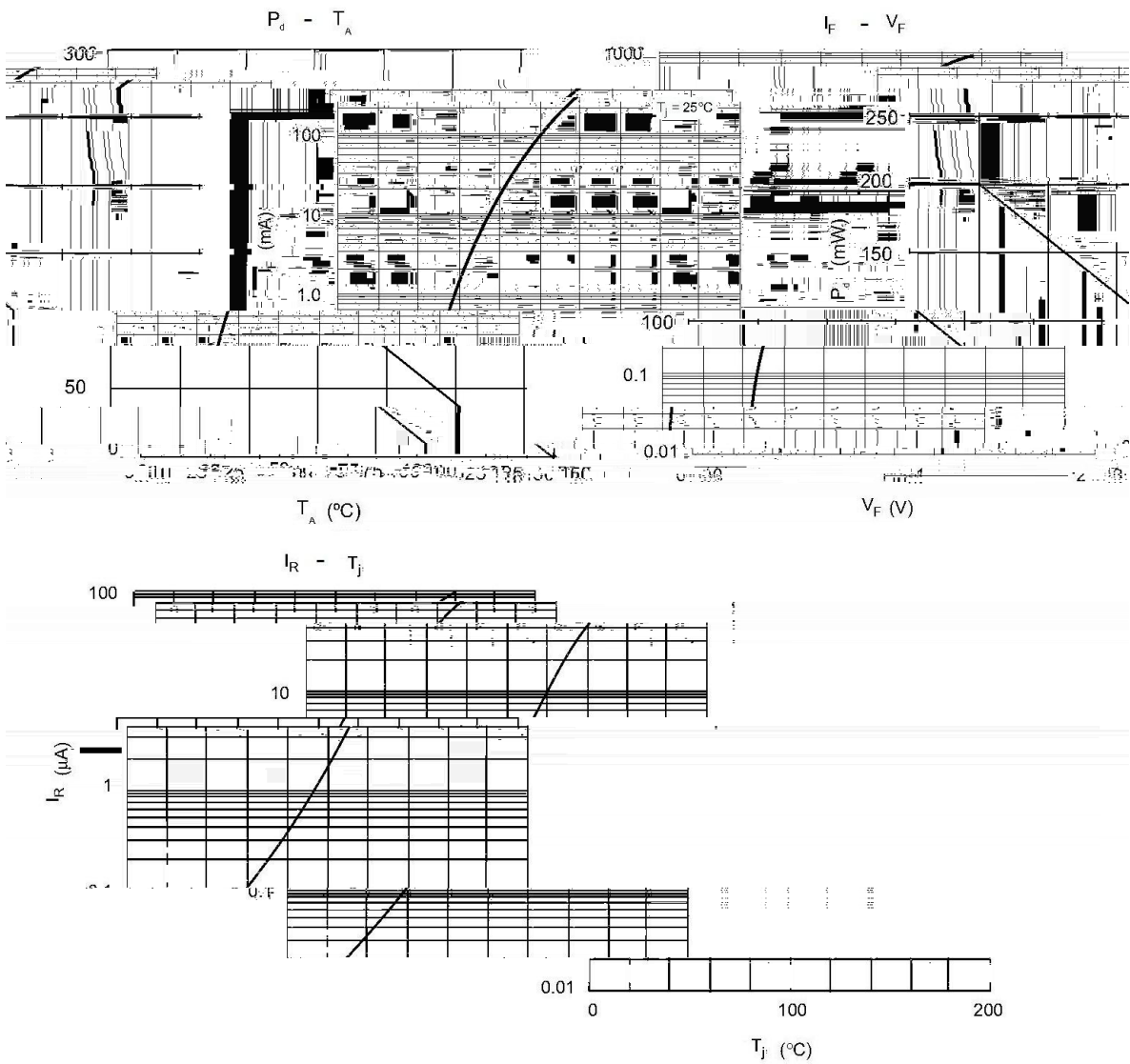
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating			Unit
		BAV19WS	BAV20WS	BAV21WS	
Peak Repetitive Reverse Voltage	V_{RRM}	120	200	250	V
Working Peak Reverse Voltage, DC Reverse Voltage	V_{RWM} V_R	100	150	200	V
RMS Reverse Voltage	$V_{R\ RMS}$	71	106	141	V
Non-Repetitive Peak Forward Current	I_{FM}	400			mA
Output Current	I_O	200			mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	t=1.0μs:2.5A t=1.0s:0.5A			A
Power Dissipation	P_d	200			mW
Typical Thermal Resistance Junction to Ambient	R_{JA}	500			/W
Junction and Storage Temperature Range	T_J, T_{stg}	-65 TO +150			

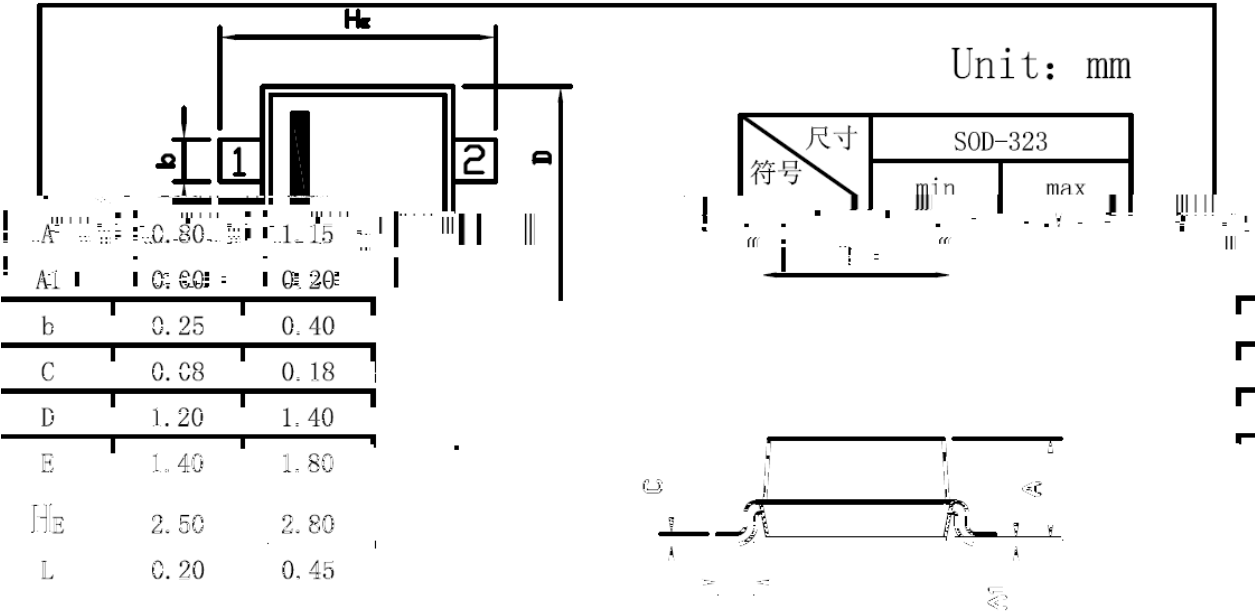
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions		Rating		Unit
				MIN	MAX	
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\mu A$	BAV19WS	120		V
			BAV20WS	200		
			BAV21WS	250		
Peak Forward Voltage	V_{FM}	$I_F=100mA$			1.0	V
		$I_F=200mA$			1.25	
Instantaneous Reverse Current	I_{RM}	$T_J=25$	$V_R=V_{RWM}$		100	nA
		$T_J=100$	$V_R=V_{RWM}$		15	uA
Reverse Recovery Time	t_{rr}	$I_F=I_R=30mA$ $I_{rr}=0.1 I_R$ $R_i=100$			50	ns
Total Capacitance	C_T	$V_R=0$ $f=1.0MHz$			5.0	pF

/ Electrical Characteristic Curve



/ Package Dimensions



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SOD-323

/ Marking Instructions



H

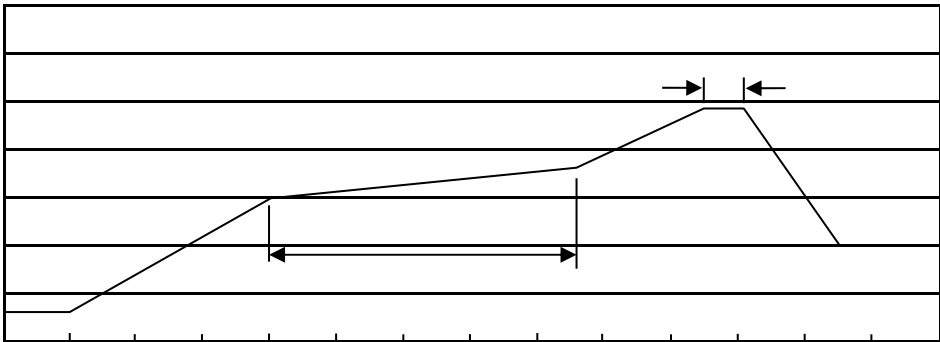
A8

Note:

H: Company Code

A8: Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;
- 2

245±5

5±0.5sec;
- 3

2 10

/sec.
- 1.Preheating:150~180

, Time:60~90sec.
- 2.Peak Temp.:245±5

, Duration:5±0.5sec.
3. Cooling Speed: 2~10

/sec.

/ Resistance to Soldering Heat Test Conditions

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOD-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices