

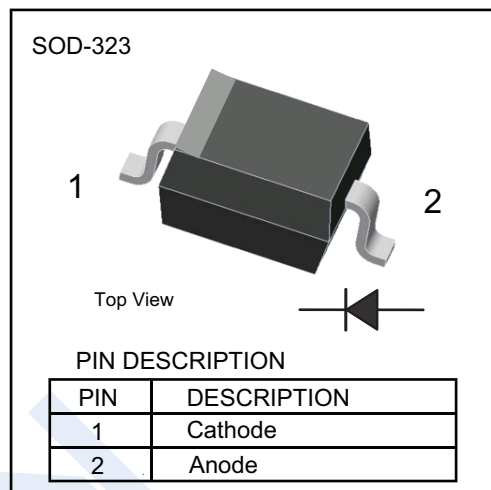
Switching Diodes

BAV19WS ~ BAV21WS

(KAV19WS ~ KAV21WS)

■ Features

- Silicon Epitaxial Planar Diodes
- For General Purpose
- This diode is also available in other case.
- Small Signal Diodes



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	BAV19W	BAV20W	BAV21W	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	120	200	250	V
Continuous Reverse Voltage	V_R	100	150	200	
Forward DC Current	I_F	250			mA
Averaged Forward Current	I_{FAV}	200			
Repetitive Peak Forward Current @ $f > 50\text{Hz}$,	I_{FRM}	625			
Surge Forward Current @ $t < 1\text{s}$	I_{FSM}	1			A
Power Dissipation	P_D	200			mW
Thermal Resistance Junction to Ambient	R_{thJA}	625			$^\circ\text{C}/\text{W}$
Junction Temperature	T_j	150			$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to 150			

Switching Diodes

BAV19WS ~ BAV21WS (KAV19WS ~ KAV21WS)

■ Electrical Characteristics Ta = 25°C

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	BAV19WS	V _(BR)	I _R = 1mA	120			V
	BAV20WS			200			
	BAV21WS			250			
Forward voltage		V _F	I _F = 100 mA			1	
			I _F = 200 mA			1.25	
Reverse voltage leakage current	BAV19WS	I _R	V _R =100V			100	nA
	BAV19WS		V _R =100V, T _J =100°C			15	μA
	BAV20WS		V _R =150V			100	nA
	BAV20WS		V _R =150V, T _J =100°C			15	μA
	BAV21WS		V _R =200V			100	nA
	BAV21WS		V _R =200V, T _J =100°C			15	μA
Dynamic Forward Resistance		r _f	I _F = 10 mA		5		Ω
Reverse Recovery Time		t _{rr}	I _F =I _R =30mA, I _{rr} =3mA, R _L =100mΩ			50	ns
Diode capacitance		C _D	V _R =0V, f=1MHz		1.5		pF

■ Marking

NO.	BAV19WS	BAV20WS	BAV21WS
Marking	A8	A9	AA

Switching Diodes

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■ Typical Characteristics

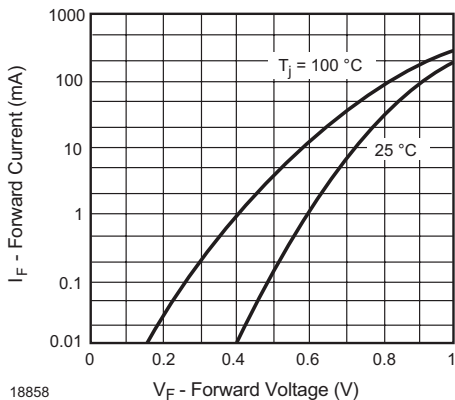


Fig. 1 - Forward Current vs. Forward Voltage

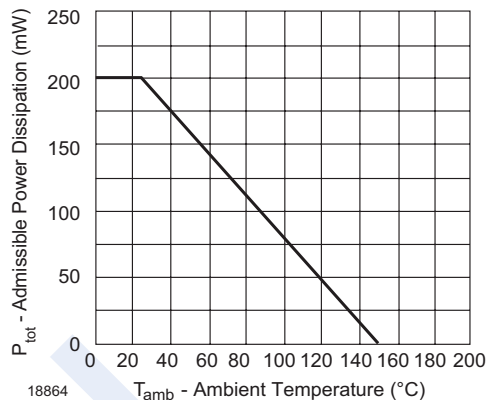


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

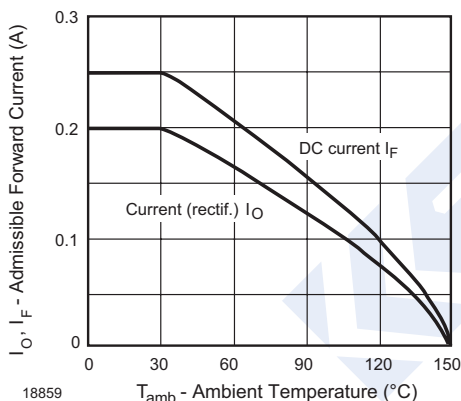


Fig. 2 - Admissible Forward Current vs. Ambient Temperature

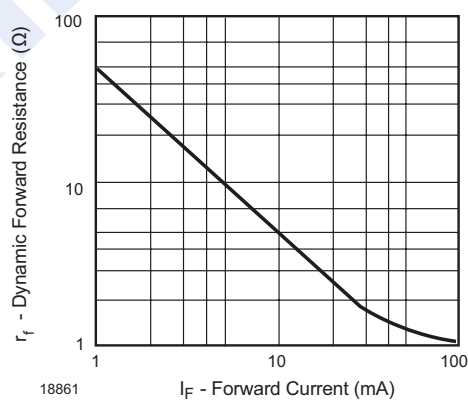


Fig. 4 - Dynamic Forward Resistance vs. Forward Current

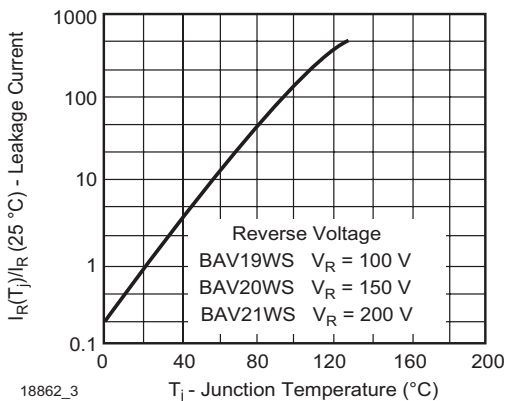


Fig. 5 - Leakage Current vs. Junction Temperature

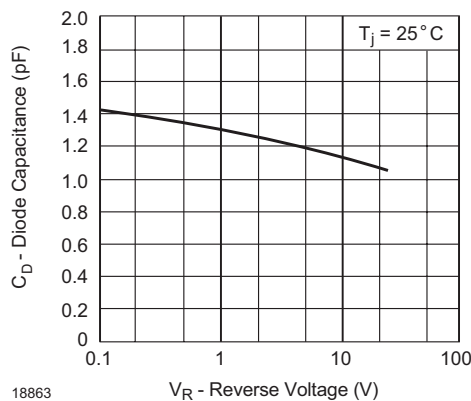


Fig. 6 - Capacitance vs. Reverse Voltage

Switching Diodes

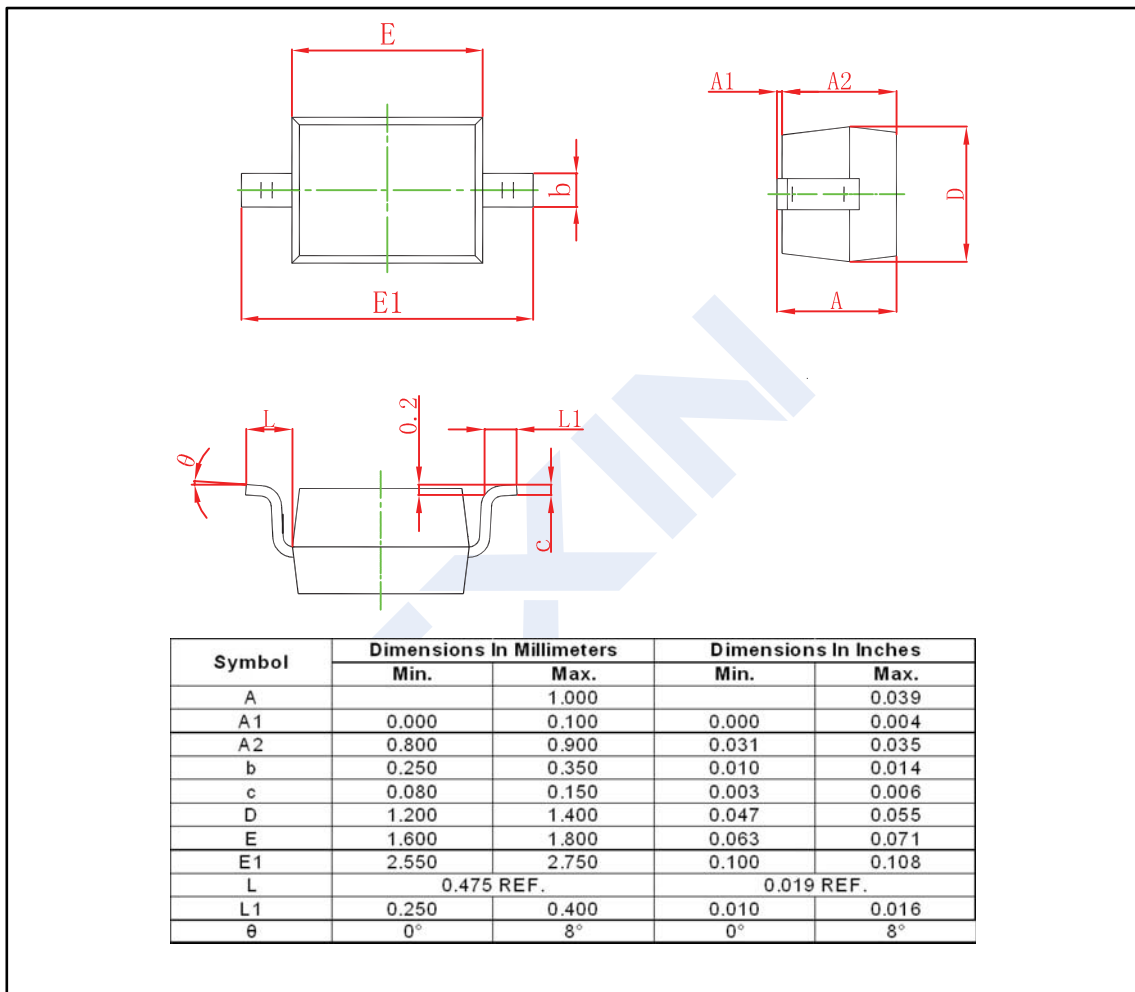
BAV19WS ~ BAV21WS

(KAV19WS ~ KAV21WS)

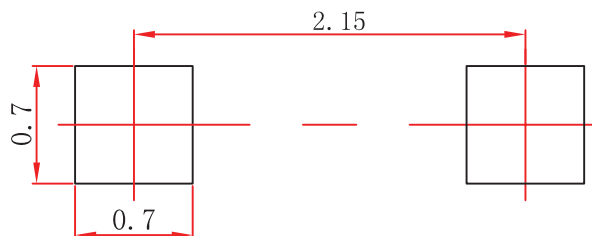
■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SOD-323



■ The Recommended Mounting Pad Size



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

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