

# BAV19WS~BAV21WS

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 120-250 Volt

**POWER** 200mWatt

**SOD-323**

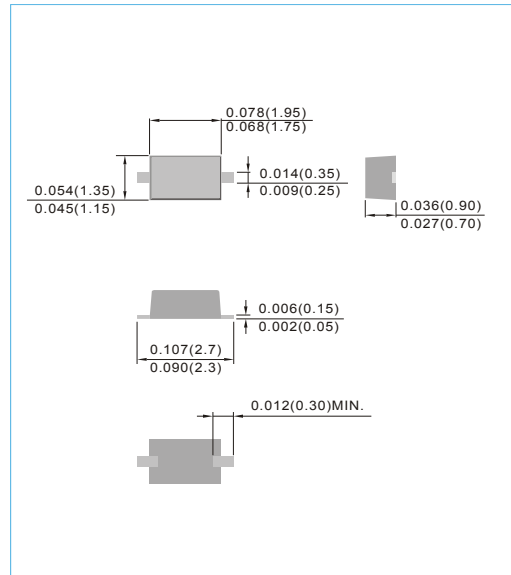
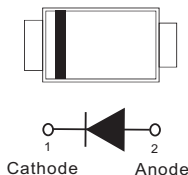
Unit : inch(mm)

### FEATURES

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion
- Electrically identical to Standard JEDEC
- High conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: SOD-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.00014 ounces, 0.0041 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAV19WS	BAV20WS	BAV21WS	UNITS
Marking Code		A8	A80	A82	
Reverse Voltage	$V_R$	100	150	200	V
Peak Reverse Voltage	$V_{RM}$	120	200	250	V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50$ Hz	$I_O$	200			mA
Peak Forward Surge Current, 0.001ms	$I_{FSM}$	4			A
Repetitive Peak Forward Current at $f \geq 50$ Hz, $\theta = 180^\circ$ , $T_{amb} = 25^\circ\text{C}$	$I_{FRM}$	625			mA
Power Dissipation Derate Above 25°C	$P_{TOT}$	200			mW
Maximum Forward Voltage at 0.1A	$V_F$	1			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$	$I_R$	0.1			$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	5			pF
Maximum Reverse Recovery Time (Note 2)	$T_{RR}$	50			ns
Maximum Thermal Resistance (Note 3) (Note 4)	$R_{\theta JA}$ $R_{\theta JC}$	640 260			$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150			$^\circ\text{C}$

NOTE :

1.  $C_J$  at  $V_R = 0$ ,  $f = 1\text{MHz}$
2. From  $I_F = 10\text{mA}$  to  $I_R = 1\text{mA}$ ,  $V_R = 6\text{Volts}$ ,  $R_L = 100\Omega$
3. Mounted with minmum recommended pas eize, PC Board FR4
4. Mounted on a FR4 PCB, single-sided copper, with  $100\text{cm}^2$  copper pad area

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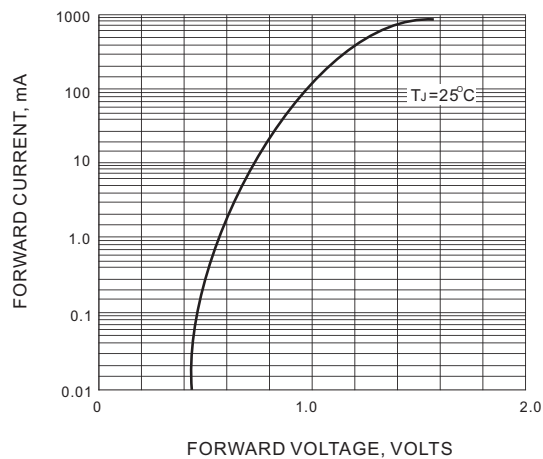


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

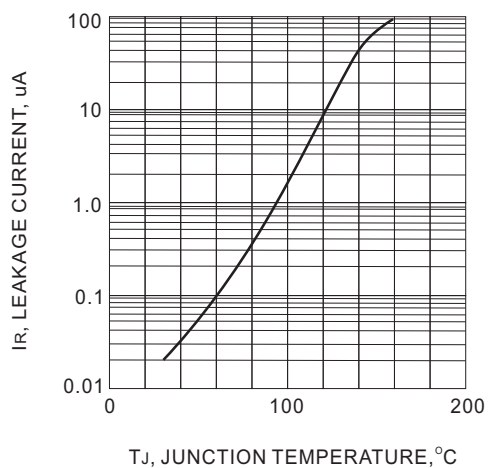


Fig.2 LEAKAGE CURRENT vs JUNCTION TEMPERATURE

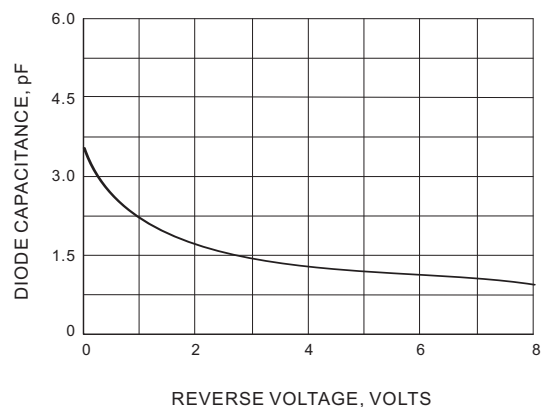


FIG. 3 TYPICAL JUNCTION CAPACITANCE

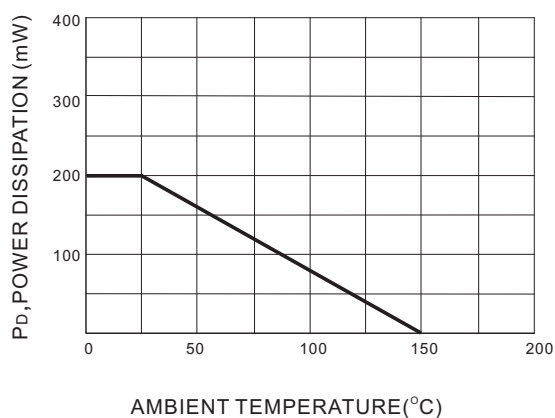


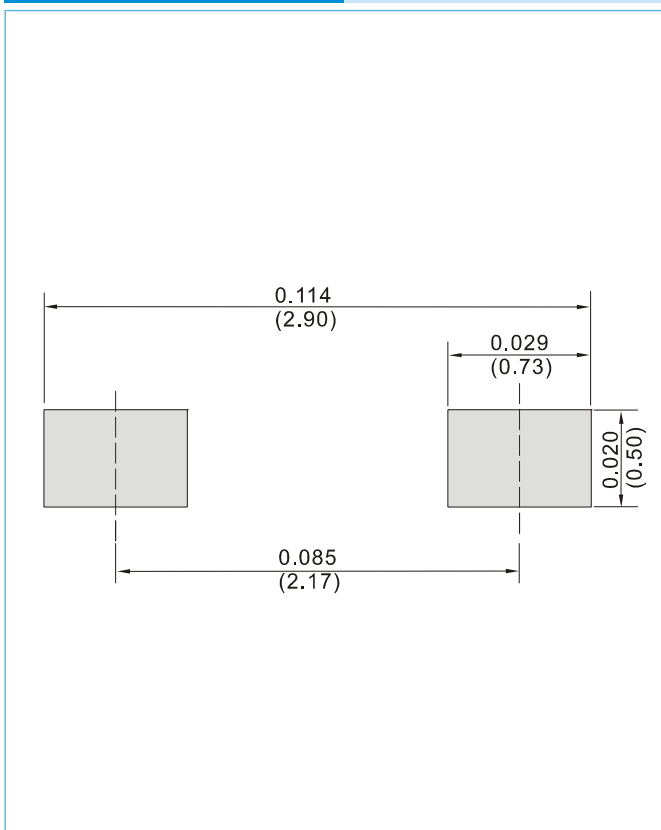
FIG. 4 POWER DERATING CURVE

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### MOUNTING PAD LAYOUT

**SOD-323**

Unit : inch(mm)



### ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 5K per 7" plastic Reel

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