



# BAV19WS-AU~BAV21WS-AU

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 120-250 Volt    **POWER** 200mWatt

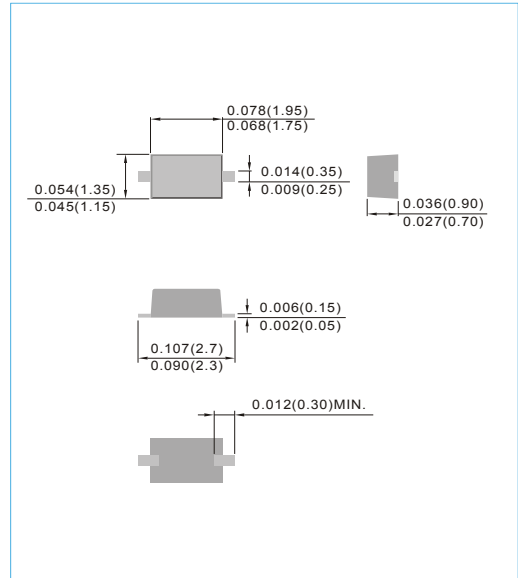
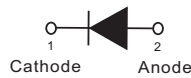
**SOD-323**    Unit : inch(mm)

### FEATURES

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion
- Electrically identical to Standard JEDEC
- High conductance
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### 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-AU	BAV20WS-AU	BAV21WS-AU	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
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.CJ 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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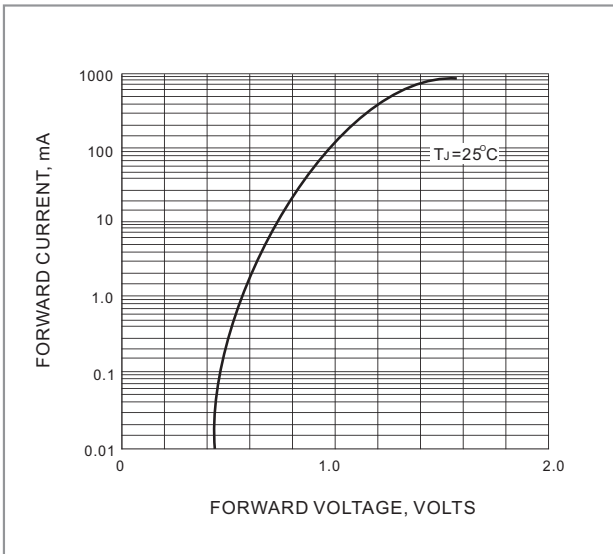


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

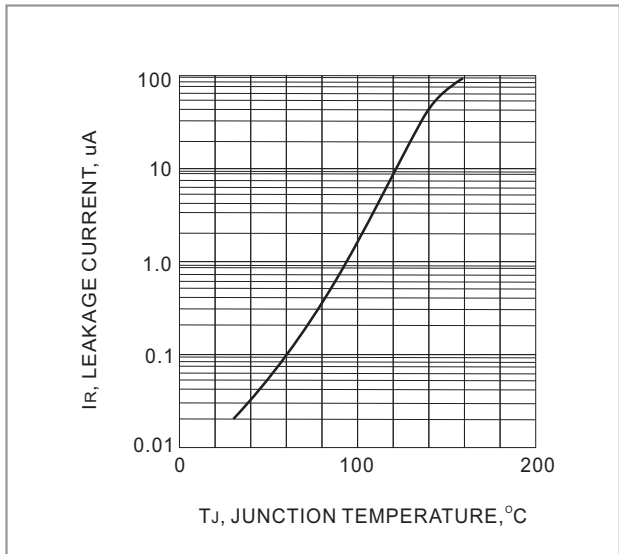


FIG.2 LEAKAGE CURRENT vs JUNCTION TEMPERATURE

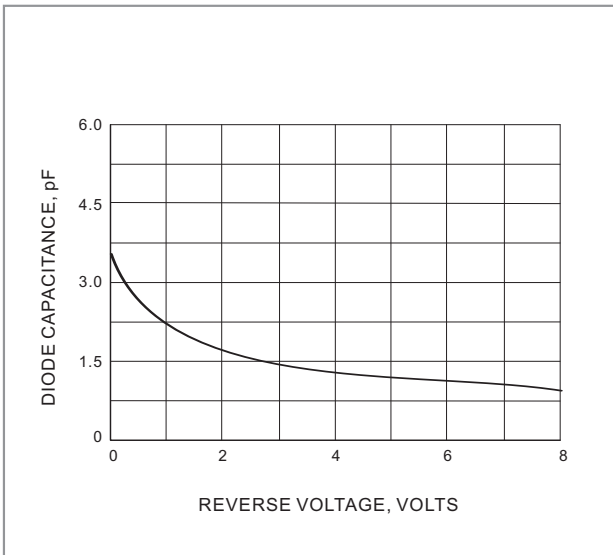


FIG. 3 TYPICAL JUNCTION CAPACITANCE

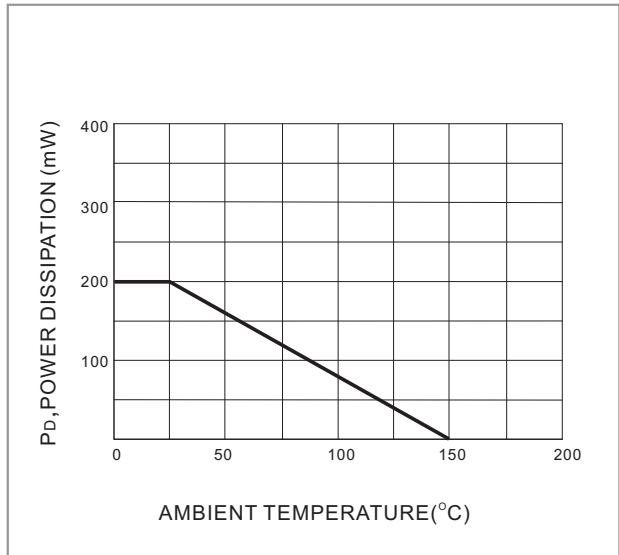


FIG. 4 POWER DERATING CURVE

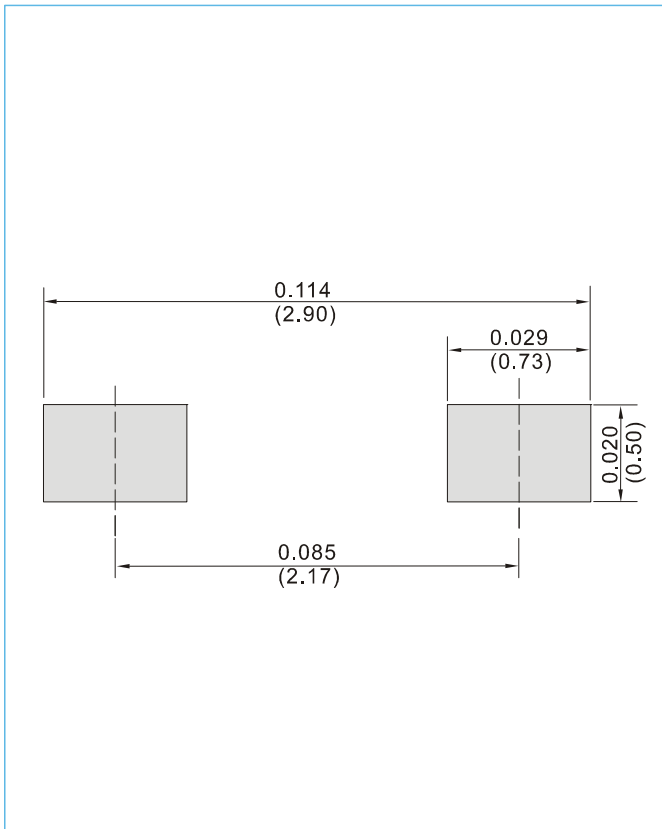


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## MOUNTING PAD LAYOUT

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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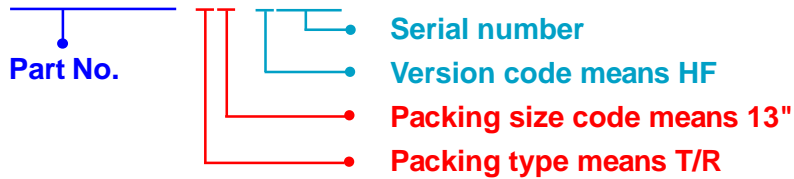
## Part No\_packing code\_Version

BAV19WS-AU\_R1\_000A1

BAV19WS-AU\_R2\_000A1

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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