



# BAV19W~BAV21W

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 120-250 Volt

**POWER** 410mWatt

**SOD-123**

Unit : inch(mm)

### FEATURES

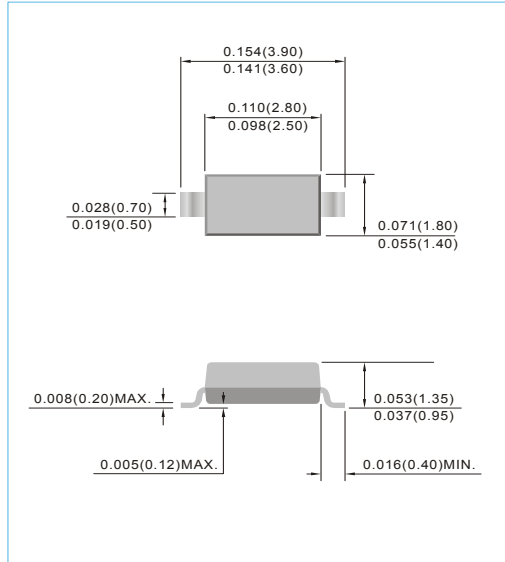
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

Case: SOD-123, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0004 ounces, 0.01 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	BAV19W	BAV20W	BAV21W	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, 1ms	$I_{FSM}$	4			A
Power Dissipation Derate Above 25°C	$P_{TOT}$	410			mW
Maximum Forward Voltage at 0.1A	$V_F$	1			V
Maximum Reverse Current at $T_J=25^\circ\text{C}$	$I_R$	0.1@100	0.1@150	0.1@200	$\mu\text{A}$
Typical Junction Capacitance( Notes1)	$C_J$	5			pF
Maximum Reverse Recovery (Notes2)	$T_{RR}$	50			ns
Typical Thermal Resistance	$R_{\theta JA}$	450			$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150			$^\circ\text{C}$

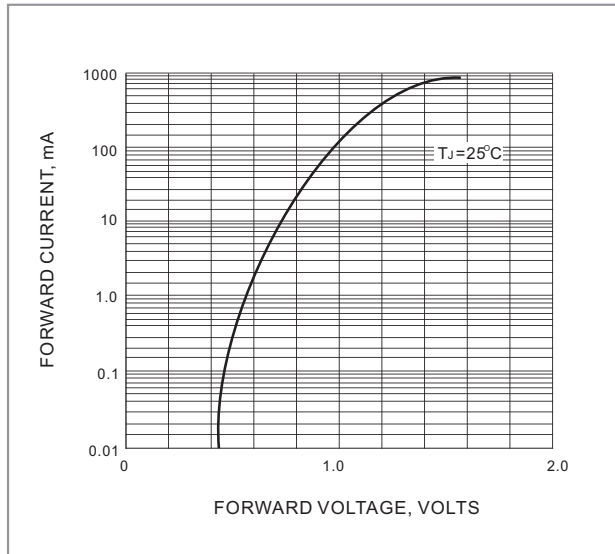
NOTE:

1.  $C_J$  at  $V_R=0$ ,  $f=1\text{MHZ}$

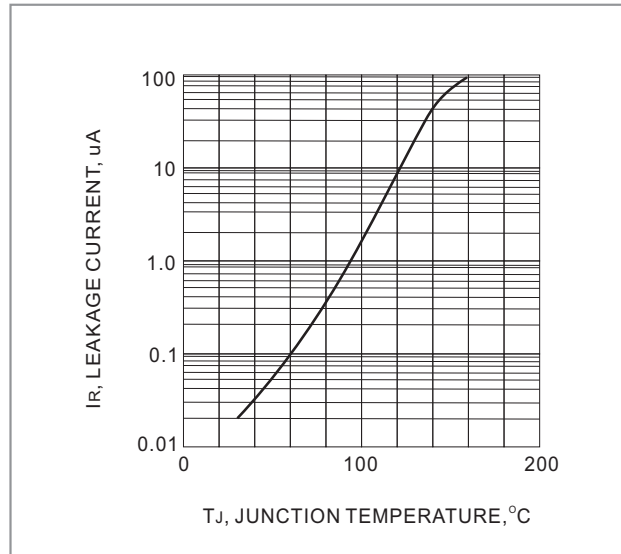
2. From  $I_F=10\text{mA}$  to  $I_R=1\text{mA}$ ,  $V_R=6\text{Volts}$ ,  $R_L=100\Omega$



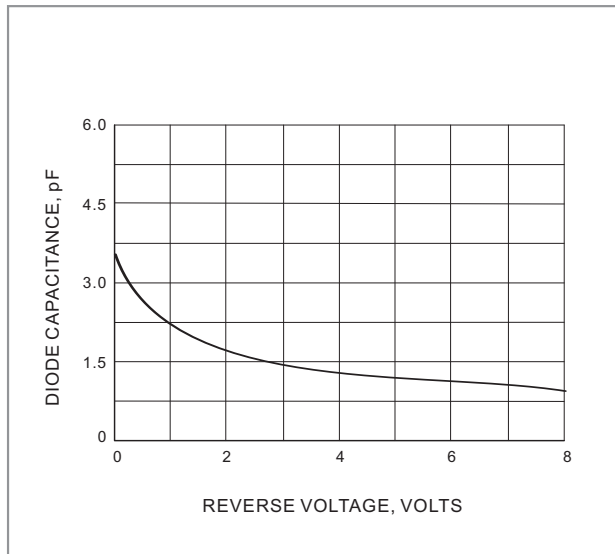
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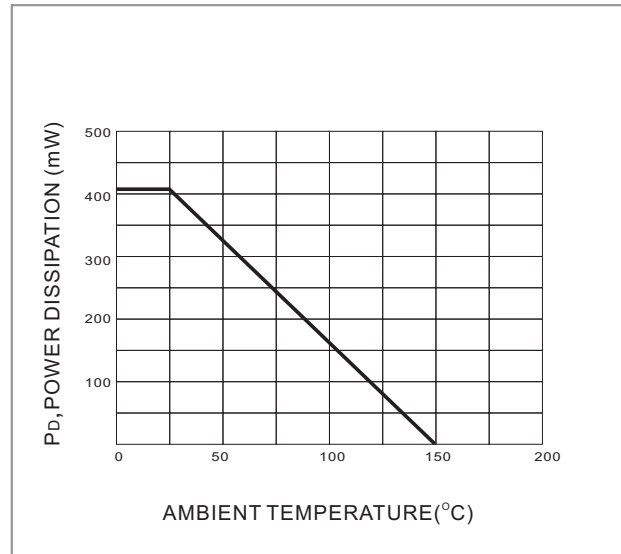
**FIG. 1-TYPICAL FORWARD CHARACTERISTIC**



**Fig.2 LEAKAGE CURRENT vs JUNCTION TEMPERATURE**



**FIG. 3 TYPICAL JUNCTION CAPACITANCE**

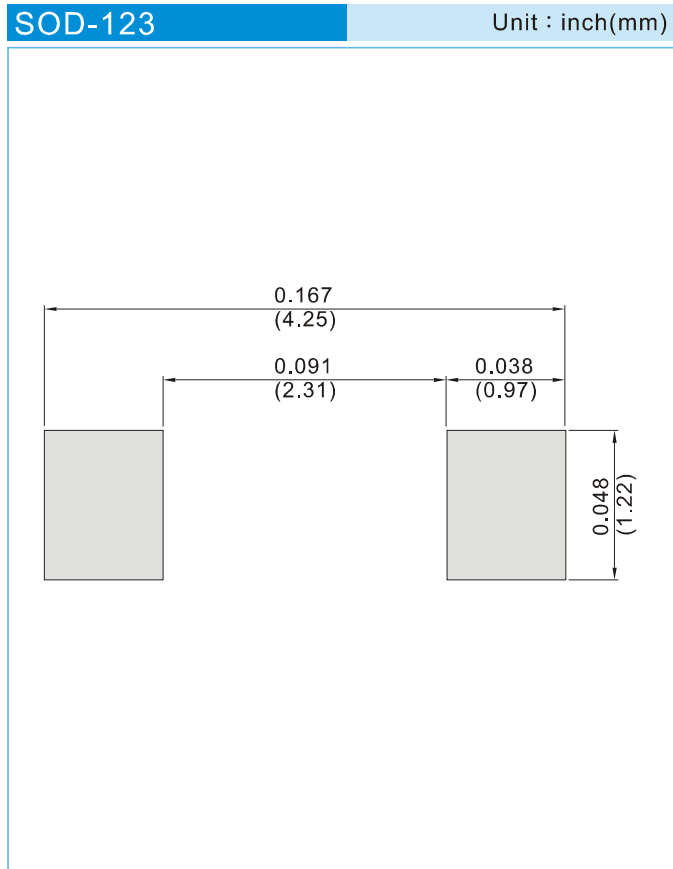


**FIG. 4 POWER DERATING CURVE**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel



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### Part No\_packing code\_Version

BAV19W\_R1\_00001

BAV19W\_R2\_00001

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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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