



DESCRIPTION

The BAV3004 is available in SOD-123 Package

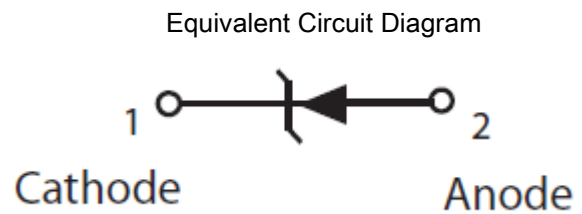
FEATURES

- Fast Switching Speed
- High Conductance
- High Reverse Breakdown Voltage Rating
- Available in SOD-123 Package

ORDERING INFORMATION

Package Type	Part Number
SOD-123	BAV3004
Note	Package Q'ty 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

@ $T_A=25^{\circ}\text{C}$ unless otherwise specified

V_{RRM} , Repetitive Peak Reverse Voltage	350V
$V_{R(RMS)}$, RMS Reverse Voltage	240V
I_F , Forward Continuous Current ^{NOTE1}	200mA
I_{FSM} , Non-Repetitive Peak Forward Surge Current	
@ $t=1.0\mu\text{s}$	4.0A
@ $t=1.0\text{s}$	1.0A
P_D , Power Dissipation ^{NOTE1}	410mW
$R_{\theta JA}$, Thermal Resistance Junction to Ambient Air ^{NOTE1}	500°C/W
T_J, T_{STG} , Operating and Storage Temperature Range	-65°C ~ +150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: Part mounted on FR-4 board with recommended pad layout.



ELECTRICAL CHARACTERISTICS

@ T_A=25°C unless otherwise specified, per element

Parameter	Symbol	Conditions	Min	Tye	Max	Unit
Reverse Breakdown Voltage ^{Note2}	V _{(BR)R}	I _R =150μA	350	-	-	V
Forward Voltage ^{Note2}	V _F	I _F =20mA		0.78	0.87	V
		I _F =100mA		0.93	1.0	
		I _F =200mA		1.03	1.25	
Reverse Current ^{Note2}	I _R	V _R =240V	-	30	100	nA
		V _R =240V, T _J =150°C	-	35	100	μA
Total Capacitance	C _T	V _R =0V, f=1.0MHZ	-	1.0	5.0	Pf
Reverse Recovery Time	t _{rr}	I _F =I _R =30mA	-	-	50	ns
		I _{RR} =3.0mA, R _L =100Ω				

NOTE2: Short duration test pulse used to minimize self-heating effect.



TYPICAL CHARACTERISTICS

Figure 1. Typical Forward

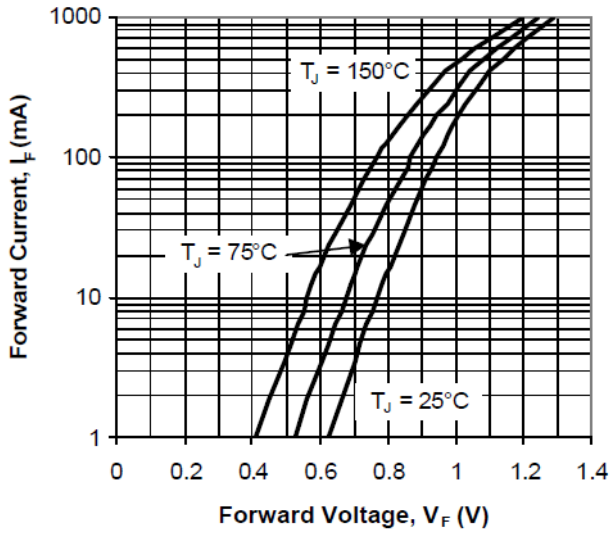


Figure 2. Typical Reverse

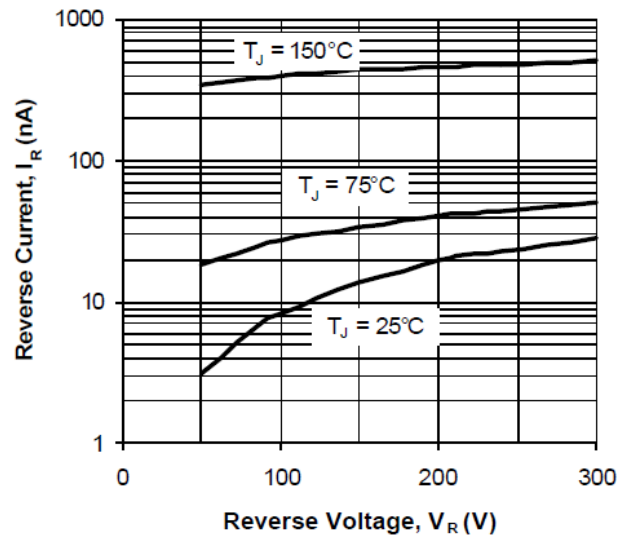
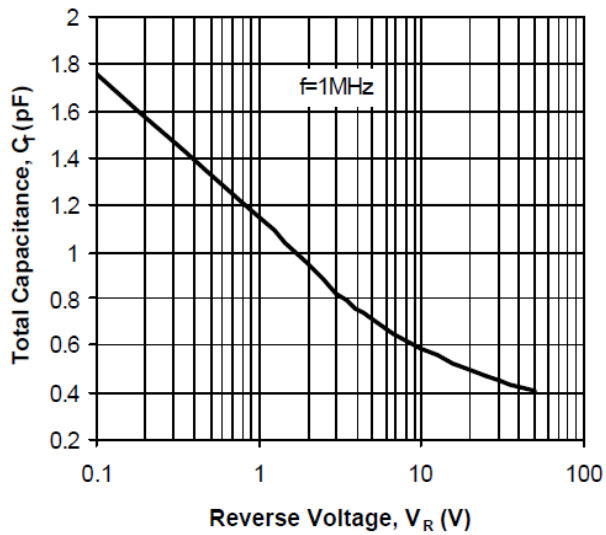


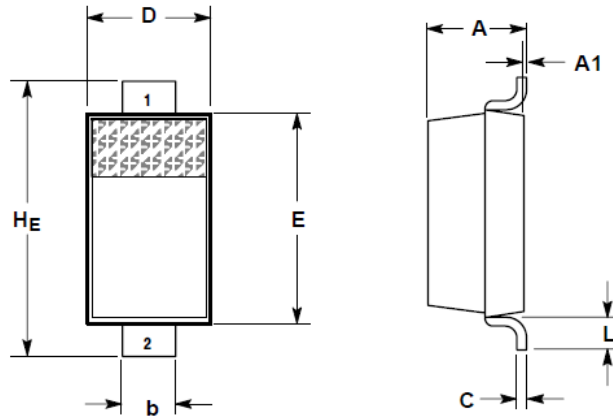
Figure 3. Typical Capacitance



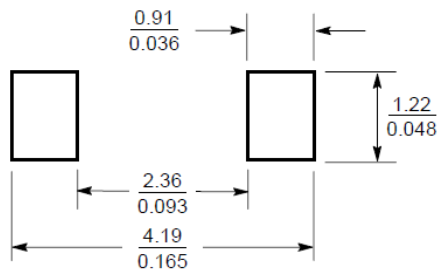


PACKAGE INFORMATION

Dimension in SOD-123 Package (Unit: mm)



SOLDERING FOOTPRINT*



SCALE 10:1 ($\frac{\text{mm}}{\text{inches}}$)

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.037	0.053	0.94	1.35
A1	0.000	0.004	0.00	0.10
b	0.020	0.028	0.51	0.71
c	-	0.006		0.15
D	0.055	0.071	1.40	1.80
E	0.100	0.112	2.54	2.84
HE	0.140	0.152	3.56	3.86
L	0.010	-	0.25	-

STYLE 1: PIN1. CATHODE
PIN2. ANODE



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