



DESCRIPTION

The BZT52B is available in SOD-123 Package.

ORDERING INFORMATION

Package Type	Part Number
SOD-123	BZT52B2V0
	BZT52B2V2
	BZT52B2V4
	BZT52B2V7
	BZT52B3V0
	BZT52B3V3
	BZT52B3V6
	BZT52B3V9
	BZT52B4V3
	BZT52B4V7
	BZT52B5V1
	BZT52B5V6
	BZT52B6V2
	BZT52B6V8
	BZT52B7V5
	BZT52B8V2
	BZT52B9V1
	BZT52B10
	BZT52B11
	BZT52B12
	BZT52B13
	BZT52B15
	BZT52B16
	BZT52B18
	BZT52B20
	BZT52B22
	BZT52B24
	BZT52B27
	BZT52B30
	BZT52B33
BZT52B36	
Note	Package=3,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

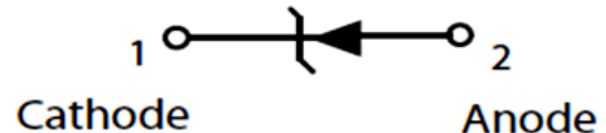
- 500mw Power Dissipation
- Ideal for Surface Mounted Application
- Zener Breakdown Voltage Range 2.0V to 36V
- Available in SOD-123 Package

APPLICATIONS

- Case : SOD-123 Molded plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Indicated by Polarity Band

PIN DESCRIPTION

Equivalent Circuit Diagram





ABSOLUTE MAXIMUM RATINGS

T_A = 25°C Unless Otherwise Specified

P _D , Total Power Dissipation on FR-5 Board ^{NOTE1}	500mW
R _{θJA} , Thermal Resistance Junction to Ambient Air ^{NOTE1}	305°C/W
V _F , Forward Voltage @ I _F = 10mA	0.9V
T _J , T _{STG} , Junction and Storage Temperature Range	-55°C to +125°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: Device mounted on ceramic PCB; 7.6mm 9.4mm 0.87mm with pad areas 25mm²



ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise specified, V_F = 0.9V Max@ I_F = 10mA

Part Number	Zener voltage			Operating resistance		Rising operating resistance		Reverse current	
	V _Z (V)			Z _Z (Ω)		Z _{ZK} (Ω)		I _R (μA)	
	MIN	MAX	I _Z (mA)	MAX	I _Z (mA)	MAX	I _Z (mA)	MAX	V _R (V)
BZT52B2V0	2.020	2.200	5	100	5	1000	0.5	120	0.5
BZT52B2V2	2.220	2.410	5	100	5	1000	0.5	120	0.7
BZT52B2V4	2.430	2.630	5	100	5	1000	0.5	100	1.0
BZT52B2V7	2.690	2.910	5	110	5	1000	0.5	100	1.0
BZT52B3V0	3.010	3.220	5	120	5	1000	0.5	50	1.0
BZT52B3V3	3.320	3.530	5	120	5	1000	0.5	20	1.0
BZT52B3V6	3.600	3.845	5	100	5	1000	1.0	10	1.0
BZT52B3V9	3.890	4.160	5	100	5	1000	1.0	5	1.0
BZT52B4V3	4.170	4.430	5	100	5	1000	1.0	5	1.0
BZT52B4V7	4.550	4.750	5	100	5	800	0.5	2	1.0
BZT52B5V1	4.980	5.200	5	80	5	500	0.5	2	1.5
BZT52B5V6	5.490	5.730	5	60	5	200	0.5	1	2.5
BZT52B6V2	6.060	6.330	5	60	5	100	0.5	1	3.0
BZT52B6V8	6.650	6.930	5	40	5	60	0.5	0.5	3.5
BZT52B7V5	7.280	7.600	5	30	5	60	0.5	0.5	4.0
BZT52B8V2	8.020	8.360	5	30	5	60	0.5	0.5	5.0
BZT52B9V1	8.850	9.230	5	30	5	60	0.5	0.5	6.0
BZT52B10	9.770	10.210	5	30	5	60	0.5	0.1	7.0
BZT52B11	10.760	11.220	5	30	5	60	0.5	0.1	8.0
BZT52B12	11.740	12.240	5	30	5	80	0.5	0.1	9.0
BZT52B13	12.910	13.490	5	37	5	80	0.5	0.1	10.0
BZT52B15	14.340	14.980	5	42	5	80	0.5	0.1	11.0
BZT52B16	15.850	16.510	5	50	5	80	0.5	0.1	12.0
BZT52B18	17.560	18.350	5	65	5	80	0.5	0.1	13.0
BZT52B20	19.520	20.390	5	85	5	100	0.5	0.1	15.0
BZT52B22	21.540	22.470	5	100	5	100	0.5	0.1	17.0
BZT52B24	23.720	24.780	5	120	5	120	0.5	0.1	19.0
BZT52B27	26.190	27.530	5	150	5	150	0.5	0.1	21.0
BZT52B30	29.190	30.690	5	200	5	200	0.5	0.1	23.0
BZT52B33	32.150	33.790	5	250	5	250	0.5	0.1	25.0
BZT52B36	35.070	36.870	5	300	5	300	0.5	0.1	27.0

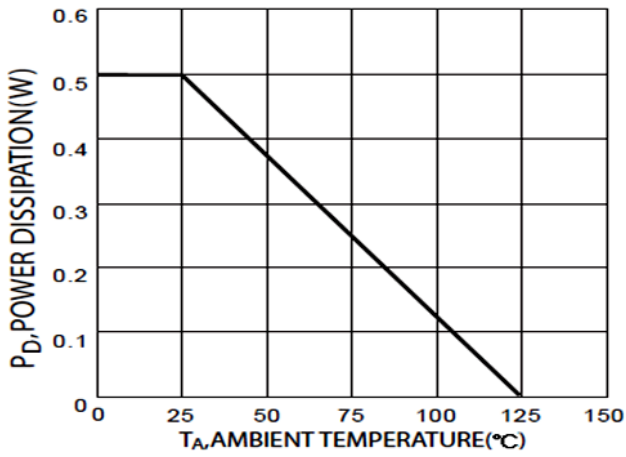
NOTE1: The Zener voltage(V_Z) is measured 40ms after power is supplied.

NOTE2: The operating resistances (Z_Z, Z_{ZK}) are measured by superimposing a minute alternating current on the regulated current(I_Z).



TYPICAL CHARACTERISTICS

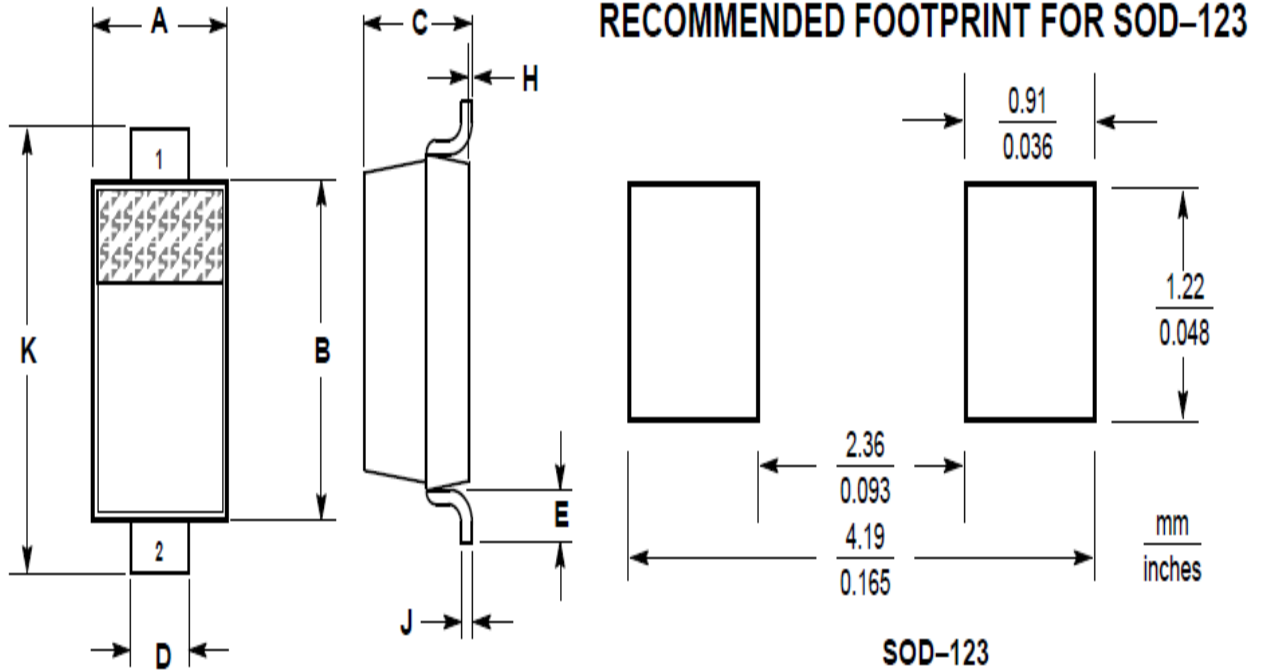
Figure 1. Power Dissipation vs. Ambient temperature





PACKAGE INFORMATION

Dimension in SOD-123 Package (Unit: mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.071	1.40	1.80
B	0.100	0.112	2.55	2.85
C	0.037	0.053	0.95	1.35
D	0.020	0.028	0.50	0.70
E	0.004	-	0.25	-
H	0.000	0.004	0.00	0.10
J	-	0.006	-	0.15
K	0.140	0.152	3.55	3.85



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