BZX784B5V1 thru BZX784B18

Surface Mount Zener Diodes

Vz Range: 5.1V to 18V Power Dissipation: 100mW

Features

- Planar die construction
- 100mW power dissipation

Schematic Diagram

SOD-723

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Forward Voltage @ I_F=10mA	V_F	0.9	V
Power Dissipation[1]	P_D	100	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	1250	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Type Number	Zener Voltage Range[2]				Maximum Zener Impedance[3]			Maximum Reverse Current		Typical Temperature Coefficent @ I_{ZT}=5mA mV/°C	
	V_Z @ I_{ZT}			I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	V_R	-	
	Nom (V)	Min (V)	Max (V)	mA	Ω		mA	uA	V	Min	Max
BZX784B5V1	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2
BZX784B5V6	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5
BZX784B9V1	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0
BZX784B18	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0

Note:

1. Valid provided that device terminals are kept at ambient temperature.
2. Tested with pulses, period=5ms, pulse width=300us.
3. f=1KHz

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Surface Mount Zener Diodes
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Typical Electrical Characteristic Curves

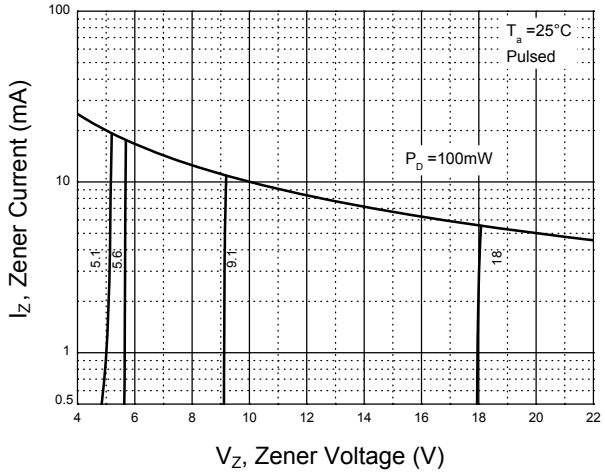


Figure 1. Zener Characteristics (V_Z 5.1V to 18V)

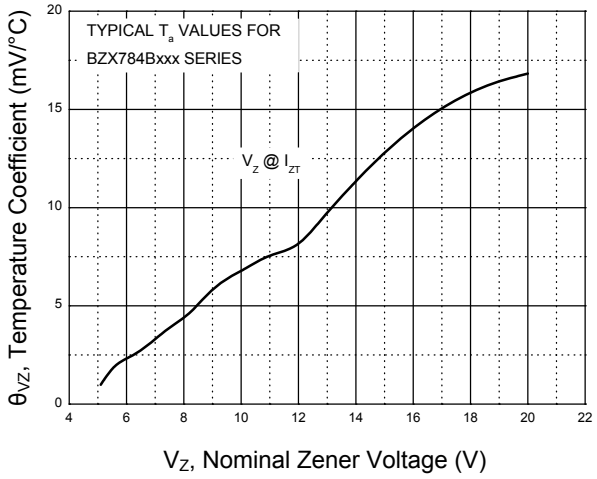


Figure 2. Temperature Coefficients

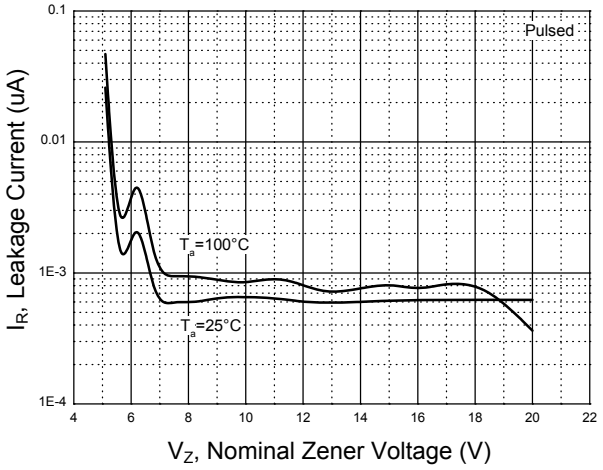


Figure 3. Typical Leakage Current

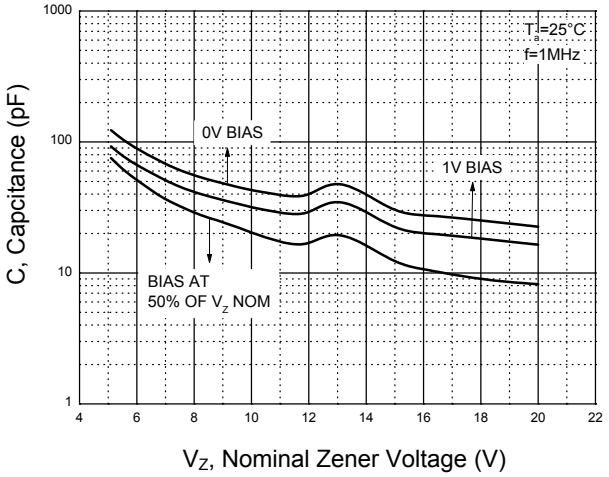


Figure 4. Typical Capacitance

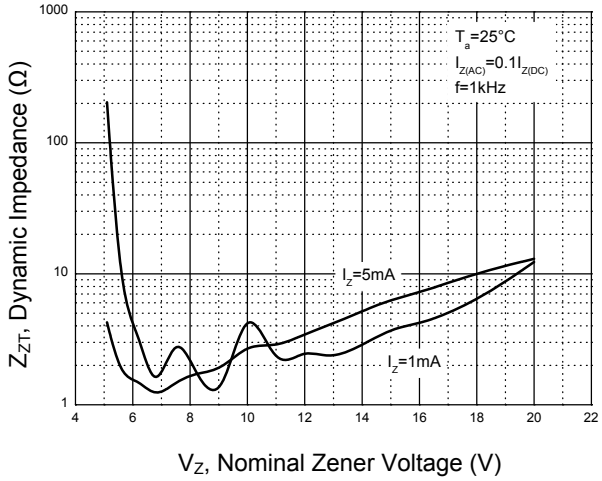


Figure 5. Effect of Zener Voltage on Zener Impedance

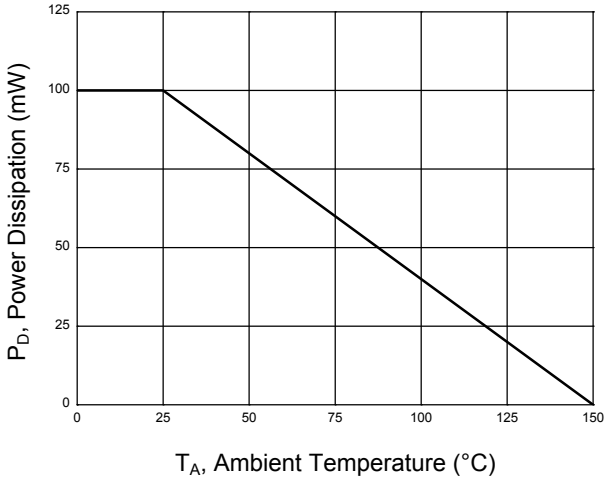
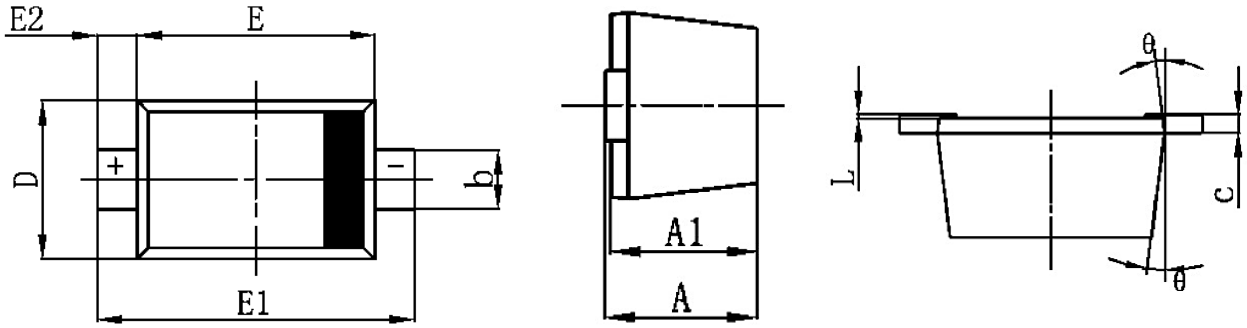


Figure 6. Power Derating Curve

BZX784B5V1 thru BZX784B18

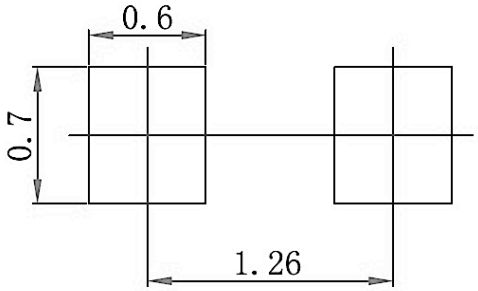
Surface Mount Zener Diodes
Vz Range: 5.1V to 18V Power Dissipation: 100mW

Package Outline Dimensions (SOD-723)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.525	0.650	0.021	0.026
A1	0.515	0.580	0.020	0.023
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.550	0.650	0.022	0.026
E	0.900	1.100	0.035	0.043
E1	1.300	1.500	0.051	0.059
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

Recommended Pad Layout



Note:

1. Controlling dimension:in millimeters.
2. General tolerance: 0.05mm.
3. The pad layout is for reference purposes only.

Order Information

Device	Package	Marking	Carrier	Quantity
BZX784B5V1	SOD-723	X2	Tape & Reel	8,000 Pcs / Reel
BZX784B5V6	SOD-723	X3	Tape & Reel	8,000 Pcs / Reel
BZX784B9V1	SOD-723	X8	Tape & Reel	8,000 Pcs / Reel
BZX784B18	SOD-723	W6	Tape & Reel	8,000 Pcs / Reel