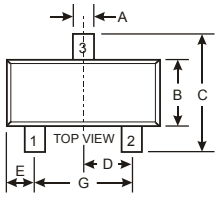
HAICHUANG SEMI

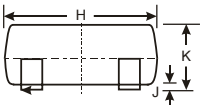
BZX84B2V4 - BZX84B39

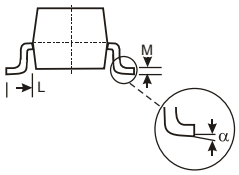
300mW SURFACE MOUNT ZENER DIODES

Features

- Planar Die Construction
- 300mW Powe Dr issipation
- Zener Voltages from 2.4V - 39V
- Ideally Suited for Automated Assembly Processes







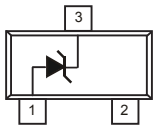
SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	300	mW
Thermal Resistance, Junction to Ambient [1)]	$R_{\theta JA}$	417	°C/W
Junction and Storage	T_j	150	°C
Temperature Range	T_S	- 55 to + 150	°C

[1)] Alumina = 0.4 X 0.3 X 0.024 in, 99.5% alumina

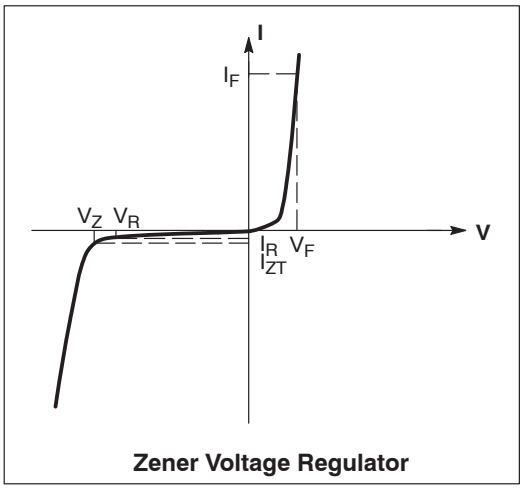
Device Schematic



ELECTRICAL CHARACTERISTICS

(Pinout: 1-Anode, 2-No Connection, 3-Cathode) (T_A = 25°C unless otherwise noted, V_F = 0.90 V Max. @ I_F = 10 mA)

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F
ΘV_Z	Maximum Temperature Coefficient of V_Z
C	Max. Capacitance @ V_R = 0 and f = 1 MHz



Zener Voltage Regulator

HAICHUANG SEMI

BZX84B2V4 - BZX84B39

350mW SURFACE MOUNT ZENER DIODES

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current		Typical Temperature Coefficent @I_{ZT}=5 mA	
		V_Z@I_{ZT}			I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}	I_{ZK}	I_R	V_R	mV/°C	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max
BZX84B2V4	2Z11	2.4	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0
BZX84B2V7	2Z12	2.7	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0
BZX84B3V0	2Z13	3	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0
BZX84B3V3	2Z14	3.3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0
BZX84B3V6	2Z15	3.6	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0
BZX84B3V9	2Z16	3.9	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0
BZX84B4V3	2Z17	4.3	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0
BZX84B4V7	2Z1	4.7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2
BZX84B5V1	2Z2	5.1	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2
BZX84B5V6	2Z3	5.6	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5
BZX84B6V2	2Z4	6.2	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7
BZX84B6V8	2Z5	6.8	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5
BZX84B7V5	2Z6	7.5	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3
BZX84B8V2	2Z7	8.2	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2
BZX84B9V1	2Z8	9.1	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0
BZX84B10	2Z9	10	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0
BZX84B11	2Y1	11	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0
BZX84B12	2Y2	12	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0
BZX84B13	2Y3	13	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0
BZX84B15	2Y4	15	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0
BZX84B16	2Y5	16	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0
BZX84B18	2Y6	18	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0
BZX84B20	2Y7	20	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0
BZX84B22	2Y8	22	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0
BZX84B24	2Y9	24	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0
BZX84B27	2Y10	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3
BZX84B30	2Y11	30	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4
BZX84B33	2Y12	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4
BZX84B36	2Y13	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4
BZX84B39	2Y14	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2

Notes:

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

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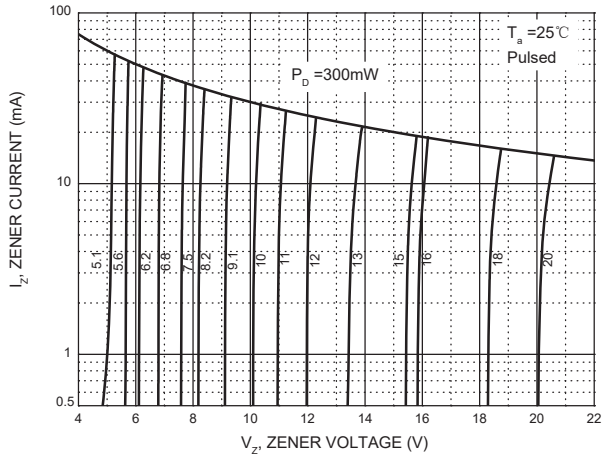
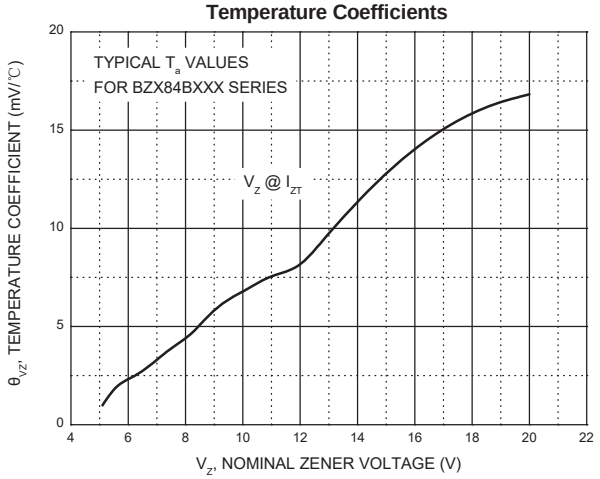
350mW SURFACE MOUNT ZENER DIODES

Electrical Characteristics @ T_A = 25°C unless otherwise specified

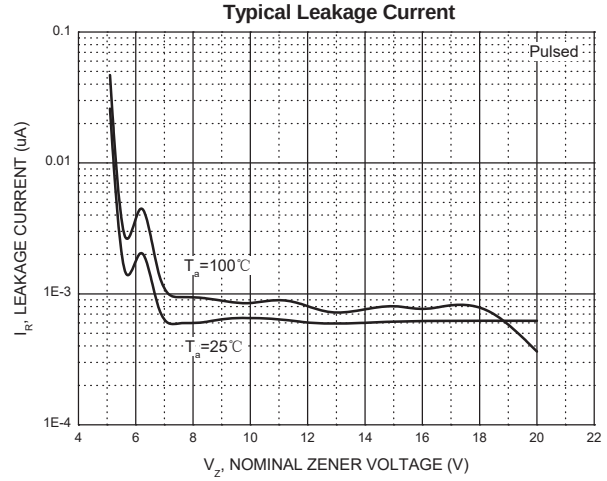
Zener Characteristics (V_Z 5.1V to 20 V)



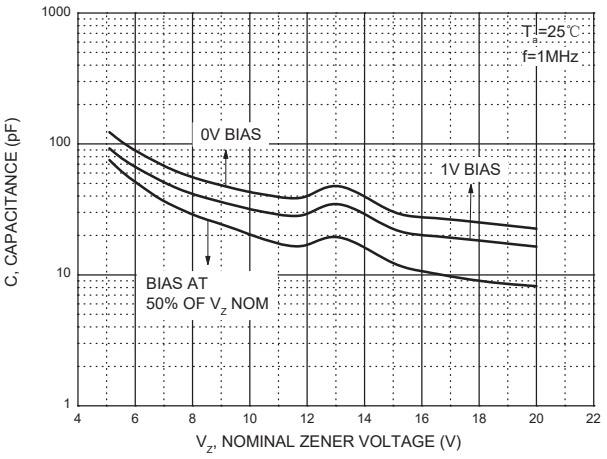
Temperature Coefficients



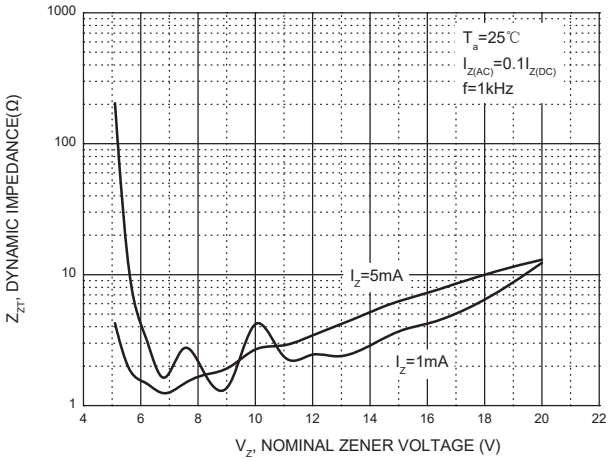
Typical Leakage Current



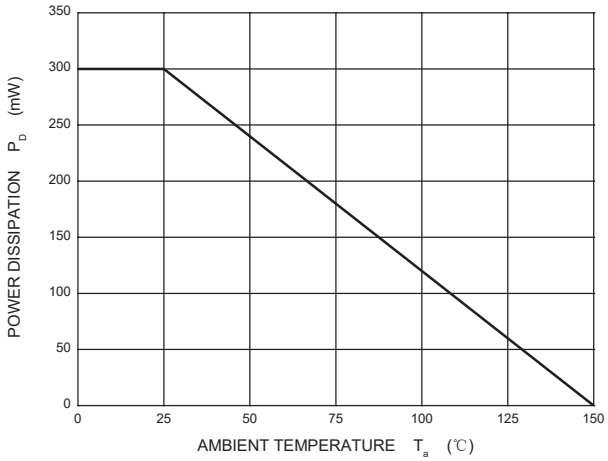
Typical Capacitance



Effect of Zener Voltage on Zener Impedance



Power Derating Curve



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