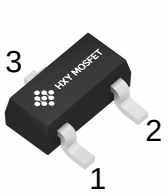
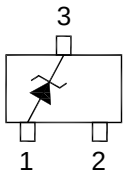
BZX84-Cxx,215
Silicon Planar Zener Diodes

Features

This series of Zener diodes is offered in the convenient, surface mount plastic SOT-23 package. These devices are designed to provide voltage regulation with minimum space requirement. The are well suited for applications such as cellular phones, hand held portables, and high densit PC boards.



SOT-23



Package Marking and Ordering Information

Product ID	Pack	Packaging	Qty(PCS)
BZX84-Cxx,215	SOT-23	Tape	3000

Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient [1)]	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

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

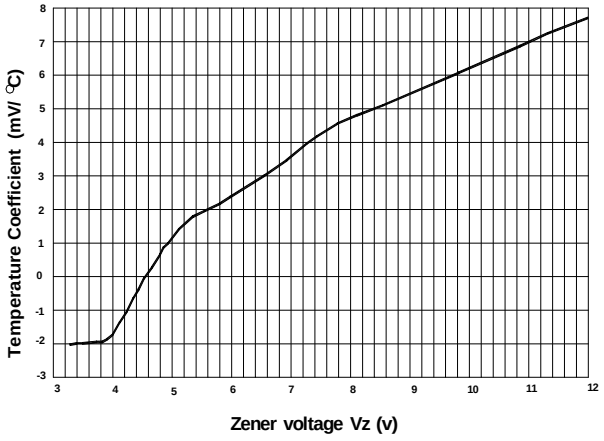
Electrical Characteristics (Ta=25°C unless otherwise noted, V_F < 0.9 V at I_F = 10 mA)

Type	Marking Code	Zener Voltage Range [1]				Dynamic Impedance		Reverse Current	
		V_{ZT}			at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
		Nom. (V)	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
BZX84-C2V0,215	A8	2	1.8	2.15	5	100	5	120	0.5
BZX84-C2V2,215	B8	2.2	2.08	2.33	5	100	5	120	0.7
BZX84-C2V4,215	C8	2.4	2.2	2.6	5	100	5	50	1
BZX84-C2V7,215	D8	2.7	2.5	2.9	5	100	5	20	1
BZX84-C3V0,215	E8	3	2.8	3.2	5	95	5	10	1
BZX84-C3V3,215	F8	3.3	3.1	3.5	5	95	5	5	1
BZX84-C3V6,215	H8	3.6	3.4	3.8	5	90	5	5	1
BZX84-C3V9,215	J8	3.9	3.7	4.1	5	90	5	3	1
BZX84-C4V3,215	K8	4.3	4	4.6	5	90	5	3	1
BZX84-C4V7,215	M8	4.7	4.4	5	5	80	5	3	2
BZX84-C5V1,215	N8	5.1	4.8	5.4	5	60	5	2	2
BZX84-C5V6,215	P8	5.6	5.2	6	5	40	5	1	2
BZX84-C6V2,215	R8	6.2	5.8	6.6	5	10	5	3	4
BZX84-C6V8,215	X8	6.8	6.4	7.2	5	15	5	2	4
BZX84-C7V5,215	Y8	7.5	7	7.9	5	15	5	1	5
BZX84-C8V2,215	Z8	8.2	7.7	8.7	5	15	5	0.7	5
BZX84-C9V1,215	A9	9.1	8.5	9.6	5	15	5	0.5	6
BZX84-C10,215	B9	10	9.4	10.6	5	20	5	0.2	7
BZX84-C11,215	C9	11	10.4	11.6	5	20	5	0.1	8
BZX84-C12,215	D9	12	11.4	12.7	5	25	5	0.1	8
BZX84-C13,215	E9	13	12.4	14.1	5	30	5	0.1	8
BZX84-C15,215	F9	15	13.8	15.6	5	30	5	0.05	10.5
BZX84-C16,215	H9	16	15.3	17.1	5	40	5	0.05	11.2
BZX84-C18,215	J9	18	16.8	19.1	5	45	5	0.05	12.6
BZX84-C20,215	K9	20	18.8	21.2	5	55	5	0.05	14
BZX84-C22,215	M9	22	20.8	23.3	5	55	5	0.05	15.4
BZX84-C24,215	N9	24	22.8	25.6	5	70	5	0.05	16.8
BZX84-C27,215	P9	27	25.1	28.9	2	80	2	0.05	18.9
BZX84-C30,215	R9	30	28	32	2	80	2	0.05	21
BZX84-C33,215	X9	33	31	35	2	80	2	0.05	23.1
BZX84-C36,215	Y9	36	34	38	2	90	2	0.05	25.2
BZX84-C39,215	Z9	39	37	41	2	130	2	0.05	27.3
BZX84-C43,215	A0	43	40	46	2	150	2	0.05	30.1
BZX84-C47,215	B0	47	44	50	2	170	2	0.05	32.9
BZX84-C51,215	C0	51	48	54	2	180	2	0.05	35.7
BZX84-C56,215	D0	56	52	60	2	200	2	0.05	39.2
BZX84-C62,215	E0	62	58	66	2	215	2	0.05	43.4
BZX84-C68,215	F0	68	64	72	2	240	2	0.05	47.6
BZX84-C75,215	H0	75	70	79	2	255	2	0.05	52.5

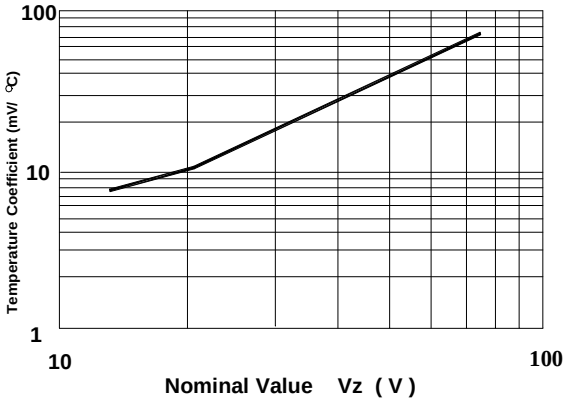
[1] Tested with pulses tp = 20 ms.

Typical Characteristics

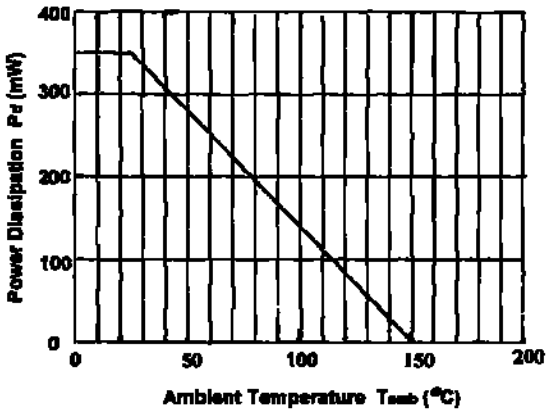
Temperature Coefficient



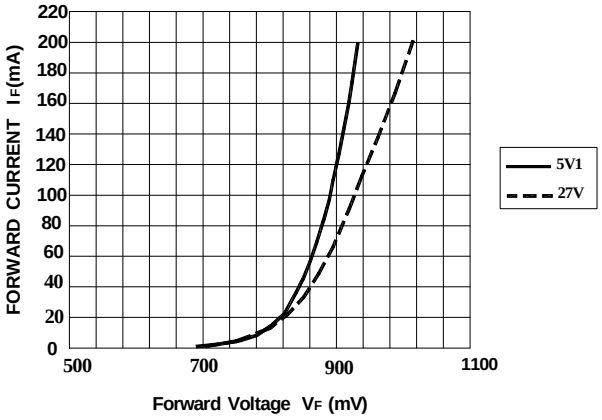
Temperature Coefficient

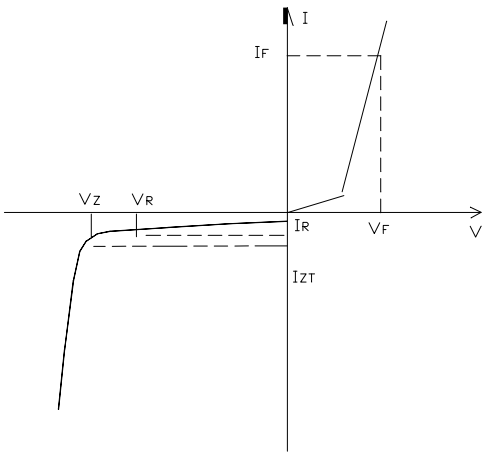


Power Derating Curve



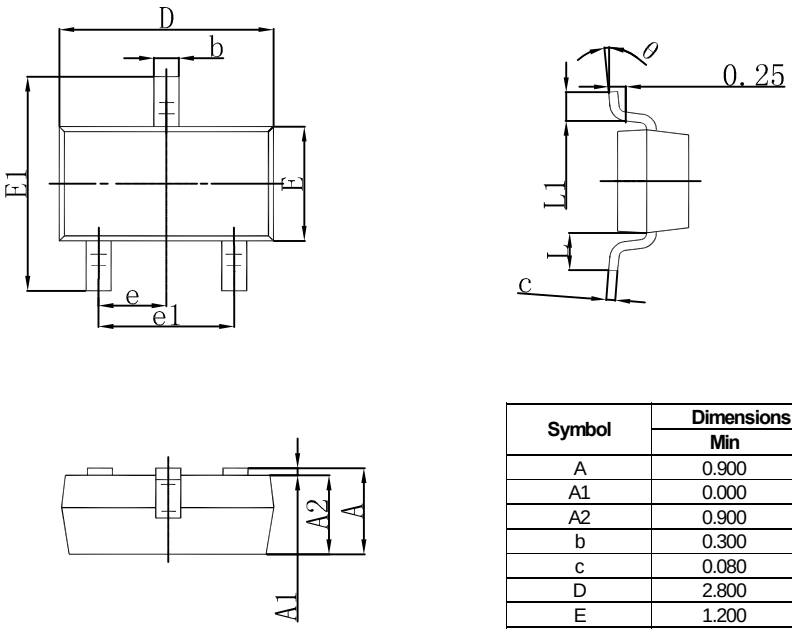
Typical Forward Voltage





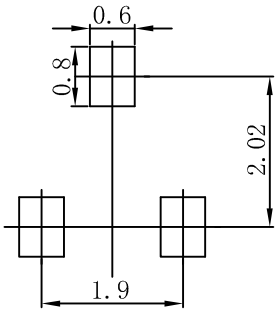
Zener Voltage Regulator

SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



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

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