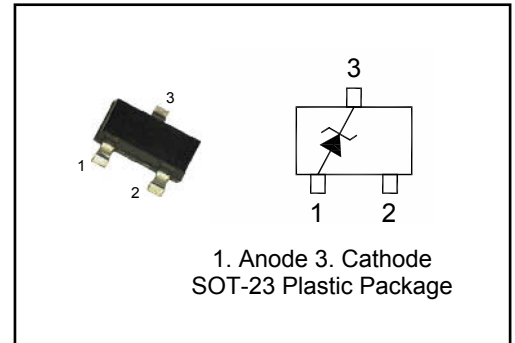


SILICON PLANAR ZENER DIODES

Halogen-free type

BZX84C...H Series

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. They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.



Features

- Zener breakdown voltage range – 2.0 V to 75 V
- Package designed for optimal automated board assembly
- Small package size for high density applications

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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

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

BZX84C...H Series

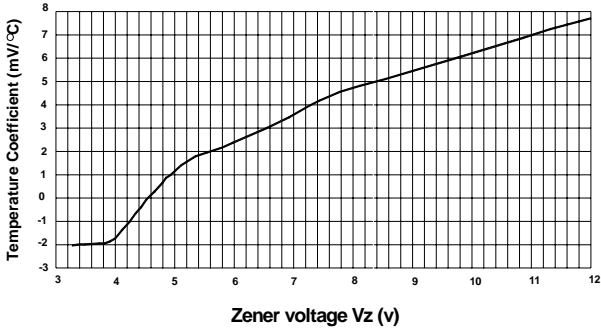
Electrical Characteristics ($T_a = 25\text{ }^\circ\text{C}$ unless otherwise noted, $V_F < 0.9\text{ V}$ at $I_F = 10\text{ mA}$)

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)
BZX84C2V0H	A8	2	1.8	2.15	5	100	5	120	0.5
BZX84C2V2H	B8	2.2	2.08	2.33	5	100	5	120	0.7
BZX84C2V4H	C8	2.4	2.2	2.6	5	100	5	50	1
BZX84C2V7H	D8	2.7	2.5	2.9	5	100	5	20	1
BZX84C3V0H	E8	3	2.8	3.2	5	95	5	10	1
BZX84C3V3H	F8	3.3	3.1	3.5	5	95	5	5	1
BZX84C3V6H	H8	3.6	3.4	3.8	5	90	5	5	1
BZX84C3V9H	J8	3.9	3.7	4.1	5	90	5	3	1
BZX84C4V3H	K8	4.3	4	4.6	5	90	5	3	1
BZX84C4V7H	M8	4.7	4.4	5	5	80	5	3	2
BZX84C5V1H	N8	5.1	4.8	5.4	5	60	5	2	2
BZX84C5V6H	P8	5.6	5.2	6	5	40	5	1	2
BZX84C6V2H	R8	6.2	5.8	6.6	5	10	5	3	4
BZX84C6V8H	X8	6.8	6.4	7.2	5	15	5	2	4
BZX84C7V5H	Y8	7.5	7	7.9	5	15	5	1	5
BZX84C8V2H	Z8	8.2	7.7	8.7	5	15	5	0.7	5
BZX84C9V1H	A9	9.1	8.5	9.6	5	15	5	0.5	6
BZX84C10H	B9	10	9.4	10.6	5	20	5	0.2	7
BZX84C11H	C9	11	10.4	11.6	5	20	5	0.1	8
BZX84C12H	D9	12	11.4	12.7	5	25	5	0.1	8
BZX84C13H	E9	13	12.4	14.1	5	30	5	0.1	8
BZX84C15H	F9	15	13.8	15.6	5	30	5	0.05	10.5
BZX84C16H	H9	16	15.3	17.1	5	40	5	0.05	11.2
BZX84C18H	J9	18	16.8	19.1	5	45	5	0.05	12.6
BZX84C20H	K9	20	18.8	21.2	5	55	5	0.05	14
BZX84C22H	M9	22	20.8	23.3	5	55	5	0.05	15.4
BZX84C24H	N9	24	22.8	25.6	5	70	5	0.05	16.8
BZX84C27H	P9	27	25.1	28.9	2	80	2	0.05	18.9
BZX84C30H	R9	30	28	32	2	80	2	0.05	21
BZX84C33H	X9	33	31	35	2	80	2	0.05	23.1
BZX84C36H	Y9	36	34	38	2	90	2	0.05	25.2
BZX84C39H	Z9	39	37	41	2	130	2	0.05	27.3
BZX84C43H	A0	43	40	46	2	150	2	0.05	30.1
BZX84C47H	B0	47	44	50	2	170	2	0.05	32.9
BZX84C51H	C0	51	48	54	2	180	2	0.05	35.7
BZX84C56H	D0	56	52	60	2	200	2	0.05	39.2
BZX84C62H	E0	62	58	66	2	215	2	0.05	43.4
BZX84C68H	F0	68	64	72	2	240	2	0.05	47.6
BZX84C75H	H0	75	70	79	2	255	2	0.05	52.5

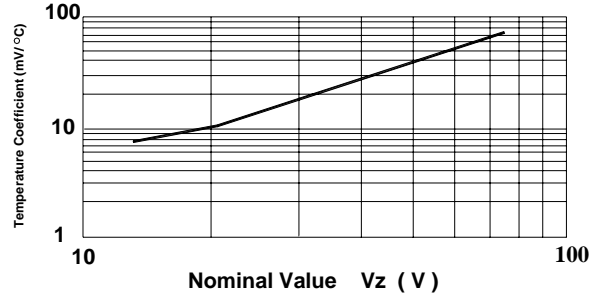
¹⁾ Tested with pulses $t_p = 20\text{ ms}$.

BZX84C...H Series

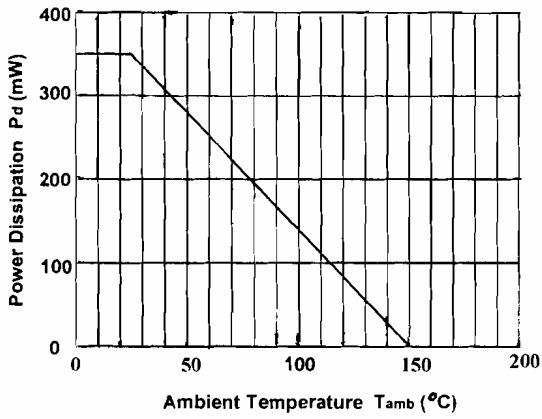
Temperature Coefficient



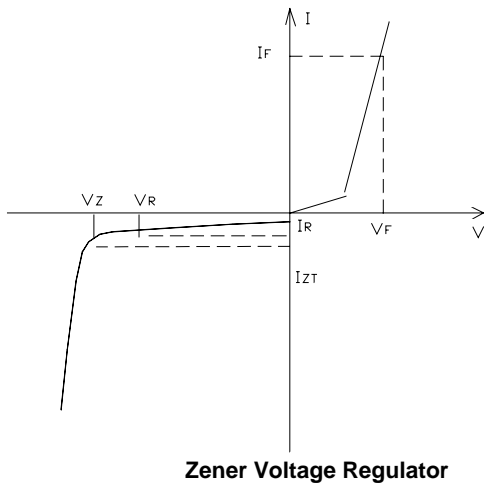
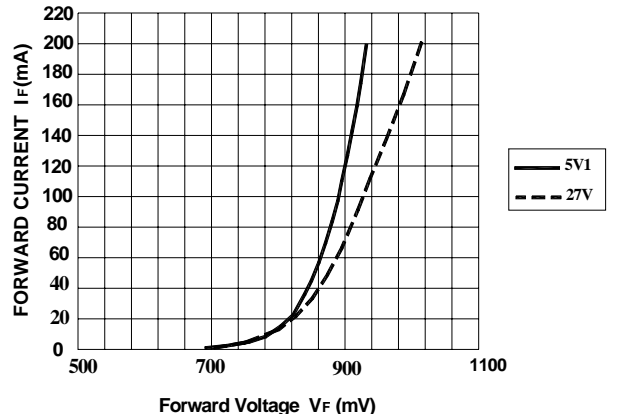
Temperature Coefficient



Power Derating Curve



Typical Forward Voltage



Zener Voltage Regulator