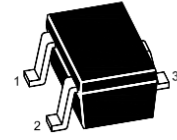
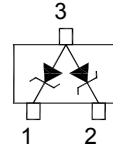


SILICON PLANAR ZENER DIODES

Features

- Zener breakdown voltage range - 2.4 V to 75 V
- Package designed for optimal automated board assembly
- Small package size for high density applications



SOT-323 Plastic Package
1. Cathode 2. Cathode 3. Anode

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

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Thermal Resistance, Junction to Ambient ¹⁾	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.9	V



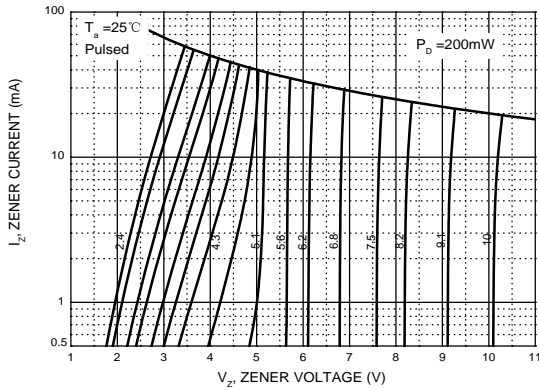
Electrical Characteristics (T_a = 25 °C unless otherwise noted)

Type	Marking Code	Zener Voltage Range ¹⁾				Dynamic Resistance		Reverse Leakage Current	
		V _Z			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
BZX84C2V4CAW	7H	2.4	2.2	2.6	5	100	5	50	1
BZX84C2V7CAW	7J	2.7	2.5	2.9	5	100	5	20	1
BZX84C3V0CAW	MR	3.0	2.8	3.2	5	95	5	10	1
BZX84C3V3CAW	MX	3.3	3.1	3.5	5	95	5	5	1
BZX84C3V6CAW	MY	3.6	3.4	3.8	5	90	5	5	1
BZX84C3V9CAW	MZ	3.9	3.7	4.1	5	90	5	3	1
BZX84C4V3CAW	NA	4.3	4	4.6	5	90	5	3	1
BZX84C4V7CAW	NB	4.7	4.4	5	5	80	5	3	2
BZX84C5V1CAW	NC	5.1	4.8	5.4	5	60	5	2	2
BZX84C5V6CAW	ND	5.6	5.2	6	5	40	5	1	2
BZX84C6V2CAW	NE	6.2	5.8	6.6	5	10	5	3	4
BZX84C6V8CAW	NF	6.8	6.4	7.2	5	15	5	2	4
BZX84C7V5CAW	NH	7.5	7	7.9	5	15	5	1	5
BZX84C8V2CAW	NJ	8.2	7.7	8.7	5	15	5	0.7	5
BZX84C9V1CAW	NK	9.1	8.5	9.6	5	15	5	0.5	6
BZX84C10CAW	NM	10	9.4	10.6	5	20	5	0.2	7
BZX84C11CAW	NN	11	10.4	11.6	5	20	5	0.1	8
BZX84C12CAW	NP	12	11.4	12.7	5	25	5	0.1	8
BZX84C13CAW	NX	13	12.4	14.1	5	30	5	0.1	8
BZX84C15CAW	NY	15	14.3	15.8	5	30	5	0.05	10.5
BZX84C16CAW	NZ	16	15.3	17.1	5	40	5	0.05	11.2
BZX84C18CAW	PA	18	16.8	19.1	5	45	5	0.05	12.6
BZX84C20CAW	PB	20	18.8	21.2	5	55	5	0.05	14
BZX84C22CAW	PC	22	20.8	23.3	5	55	5	0.05	15.4
BZX84C24CAW	PD	24	22.8	25.6	5	70	5	0.05	16.8
BZX84C27CAW	PE	27	25.1	28.9	2	80	2	0.05	18.9
BZX84C30CAW	PF	30	28	32	2	80	2	0.05	21
BZX84C33CAW	PH	33	31	35	2	80	2	0.05	23.1
BZX84C36CAW	PJ	36	34	38	2	90	2	0.05	25.2
BZX84C39CAW	PM	39	37	41	2	130	2	0.05	27.3
BZX84C43CAW	PN	43	40	46	2	150	2	0.05	30.1
BZX84C47CAW	PP	47	44	50	2	170	2	0.05	32.9
BZX84C51CAW	7K	51	48	54	2	180	2	0.05	35.7
BZX84C56CAW	7M	56	52	60	2	200	2	0.05	39.2
BZX84C62CAW	7N	62	58	66	2	215	2	0.05	43.4
BZX84C68CAW	7P	68	64	72	2	240	2	0.05	47.6
BZX84C75CAW	7R	75	70	79	2	255	2	0.05	52.5

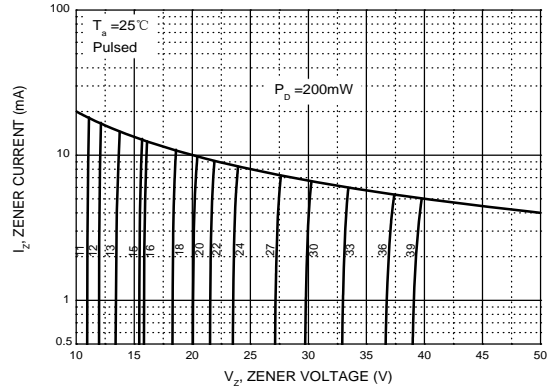
¹⁾ Tested with pulses t_p = 20 ms.

Typical Characteristics

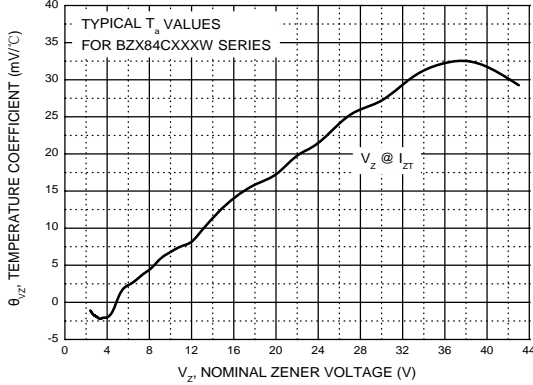
Zener Characteristics (V_z Up to 10 V)



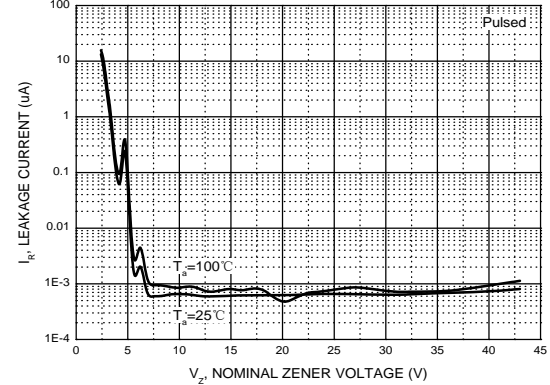
Zener Characteristics (11 V to 39 V)



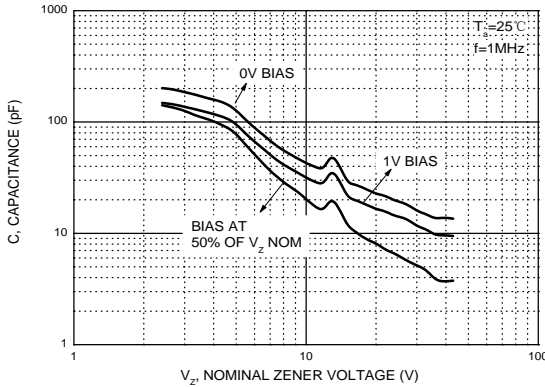
Temperature Coefficients



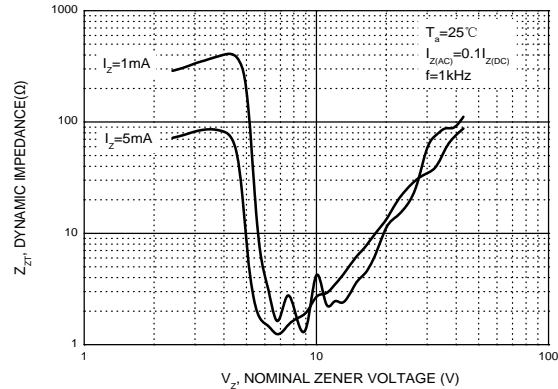
Typical Leakage Current



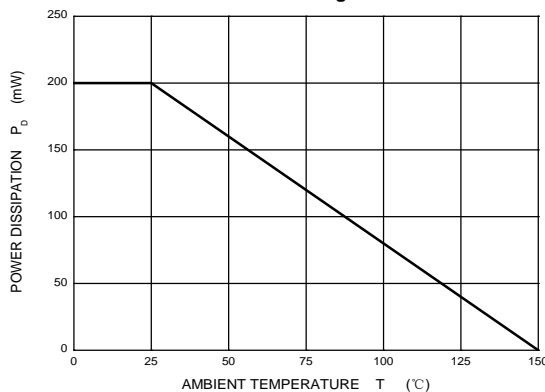
Typical Capacitance



Effect of Zener Voltage on Zener Impedance



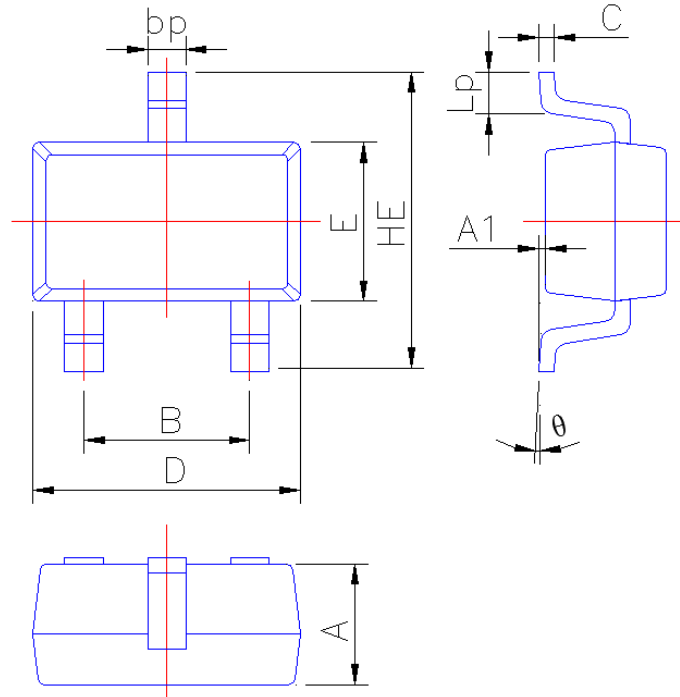
Power Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-323



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
θ	0°	6°