

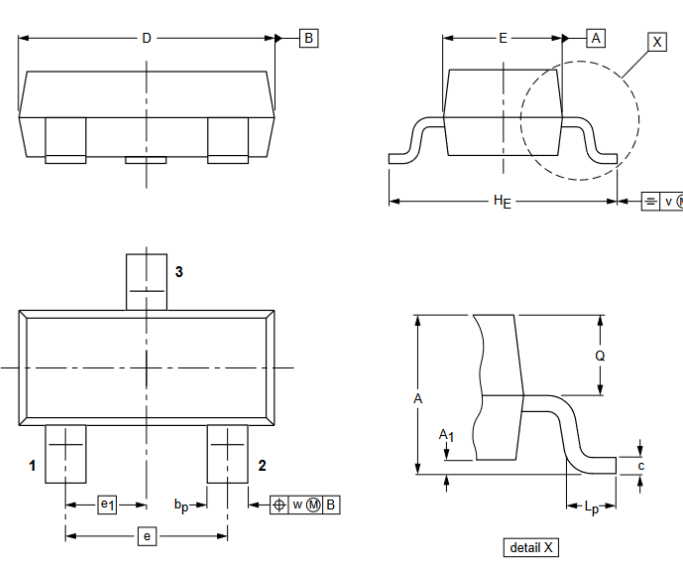
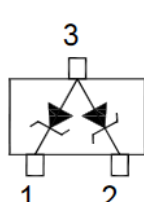
Silicon SMD Voltage Regulator Zener Diodes

Primary characteristics		
Parameter	Value	Unit
V _Z range nom.	2.4 to 75	V
Power rating	350	mW

Features

- SOT-23 (TO-236AB) case for easy automatic insertion.
- Pb-Free and RoHS Compliant

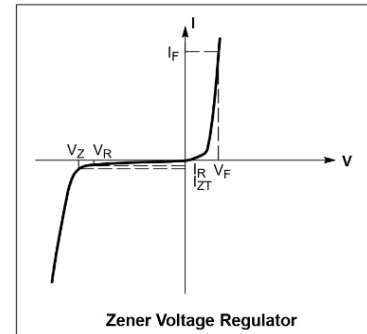
Part numbering system		
BZX84C	8V2	CA
↓ Series code	↓ Reverse Zener Voltage see: Characteristics table	↓ Series code

Case dimensions													
													
													
1 – Cathode; 2 – Cathode; 3 - Anode													
SOT-23 (TO-236AB)													
Unit	A	A _{1max}	b _p	c	D	E	e	e ₁	H _ε	L _p	Q	v	w
mm	1.0 ±0.1	0.1	0.43 ±0.05	0.12 ±0.03	2.9 ±0.1	1.3 ±0.1	1.9	0.95	2.3 ±0.2	0.3 ±0.15	0.5 ±0.05	0.2	0.1

Absolute maximum ratings (T _a = 25°C)			
Parameter	Symbol	Value	Unit
Forward Voltage @I _F =10mA	V _F	900	mV
Power Dissipation ¹⁾	P _D	350	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _s	-65 to 150	°C
Thermal Resistance Junction to Ambient Air ¹⁾	R _{thA}	417	°C/W

¹⁾Device mounted on FR-4 PCB with recommended pad layout

Parameters list	
Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F

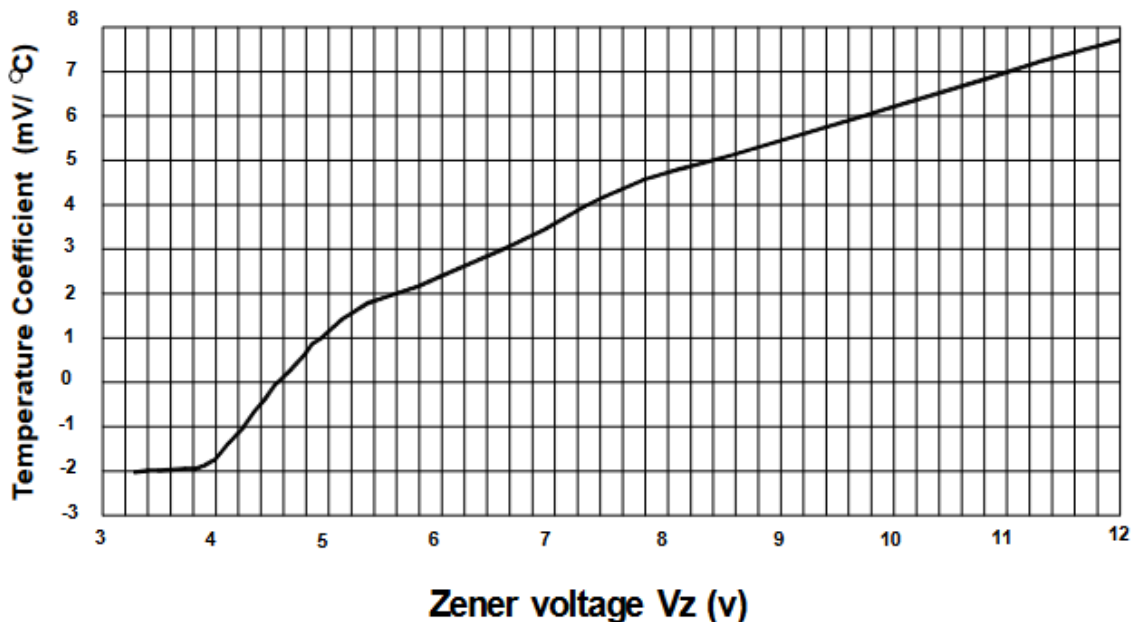


Characteristics table ($T_a = 25^\circ\text{C}$)

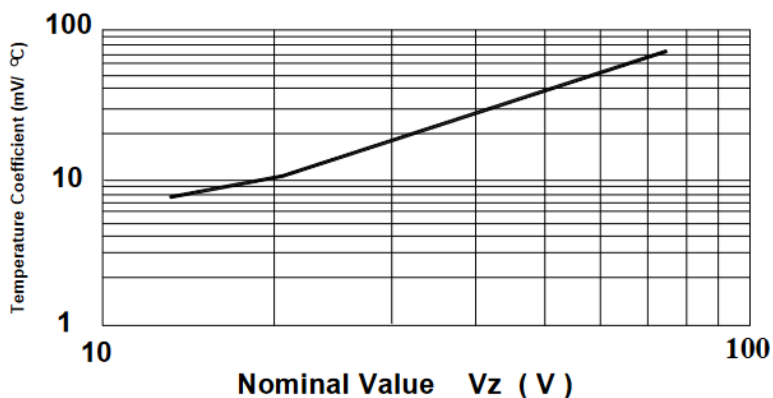
Type	Marking Code	Zener Voltage Range ¹⁾			Dynamic Resistance		Reverse Leakage Current	
		V_Z nom.	at I_{ZT}	V_{ZT} range	Z_{ZT}	at I_{ZT}	I_R	at V_R
		V	mA	V	Ω	mA	μA	V
BZX84C2V4CA	7H	2.4	5.0	2.2 ~ 2.6	<100	5.0	<50	1.0
BZX84C2V7CA	7J	2.7	5.0	2.5 ~ 2.9	<100	5.0	<20	1.0
BZX84C3V0CA	MR	3.0	5.0	2.8 ~ 3.2	<95	5.0	<10	1.0
BZX84C3V3CA	MX	3.3	5.0	3.1 ~ 3.5	<95	5.0	<5.0	1.0
BZX84C3V6CA	MY	3.6	5.0	3.4 ~ 3.8	<90	5.0	<5.0	1.0
BZX84C3V9CA	MZ	3.9	5.0	3.7 ~ 4.1	<90	5.0	<3.0	1.0
BZX84C4V3CA	NA	4.3	5.0	4.0 ~ 4.6	<90	5.0	<3.0	1.0
BZX84C4V7CA	NB	4.7	5.0	4.4 ~ 5.0	<80	5.0	<3.0	2.0
BZX84C5V1CA	NC	5.1	5.0	4.8 ~ 5.4	<60	5.0	<2.0	2.0
BZX84C5V6CA	ND	5.6	5.0	5.2 ~ 6.0	<40	5.0	<1.0	2.0
BZX84C6V2CA	NE	6.2	5.0	5.8 ~ 6.6	<10	5.0	<3.0	4.0
BZX84C6V8CA	NF	6.8	5.0	6.4 ~ 7.2	<15	5.0	<2.0	4.0
BZX84C7V5CA	NH	7.5	5.0	7.0 ~ 7.9	<15	5.0	<1.0	5.0
BZX84C8V2CA	NJ	8.2	5.0	7.7 ~ 8.7	<15	5.0	<0.7	5.0
BZX84C9V1CA	NK	9.1	5.0	8.5 ~ 9.6	<15	5.0	<0.5	6.0
BZX84C10CA	NM	10	5.0	9.4 ~ 10.6	<20	5.0	<0.2	7.0
BZX84C11CA	NN	11	5.0	10.4 ~ 11.6	<20	5.0	<0.1	8.0
BZX84C12CA	NP	12	5.0	11.4 ~ 12.7	<25	5.0	<0.1	8.0
BZX84C13CA	NX	13	5.0	12.4 ~ 14.1	<30	5.0	<0.1	8.0
BZX84C15CA	NY	15	5.0	13.8 ~ 15.6	<30	5.0	<0.05	10.5
BZX84C16CA	NZ	16	5.0	15.3 ~ 17.1	<40	5.0	<0.05	11.2
BZX84C18CA	PA	18	5.0	16.8 ~ 19.1	<45	5.0	<0.05	12.6
BZX84C20CA	PB	20	5.0	18.8 ~ 21.2	<55	5.0	<0.05	14.0
BZX84C22CA	PC	22	5.0	20.8 ~ 23.3	<55	5.0	<0.05	15.4
BZX84C24CA	PD	24	5.0	22.8 ~ 25.6	<70	5.0	<0.05	16.8
BZX84C27CA	PE	27	2.0	25.1 ~ 28.9	<80	2.0	<0.05	18.9
BZX84C30CA	PF	30	2.0	28.0 ~ 32.0	<80	2.0	<0.05	21.0
BZX84C33CA	PH	33	2.0	31.0 ~ 35.0	<80	2.0	<0.05	23.1
BZX84C36CA	PJ	36	2.0	34.0 ~ 38.0	<90	2.0	<0.05	25.2
BZX84C39CA	PM	39	2.0	37.0 ~ 41.0	<130	2.0	<0.05	27.3
BZX84C43CA	PN	43	2.0	40.0 ~ 46.0	<150	2.0	<0.05	30.1
BZX84C47CA	PP	47	2.0	44.0 ~ 50.0	<170	2.0	<0.05	32.9
BZX84C51CA	7K	51	2.0	48.0 ~ 54.0	<180	2.0	<0.05	35.7
BZX84C56CA	7M	56	2.0	52.0 ~ 60.0	<200	2.0	<0.05	39.2
BZX84C62CA	7N	62	2.0	58.0 ~ 66.0	<215	2.0	<0.05	43.4
BZX84C68CA	7P	68	2.0	64.0 ~ 72.0	<240	2.0	<0.05	47.6
BZX84C75CA	7R	75	2.0	70.0 ~ 79.0	<255	2.0	<0.05	52.5

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

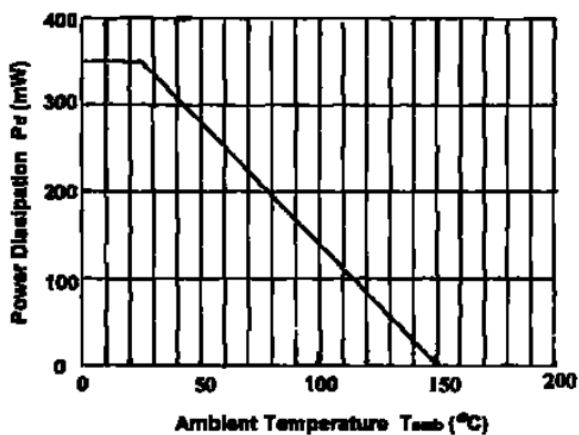
Temperature coefficient



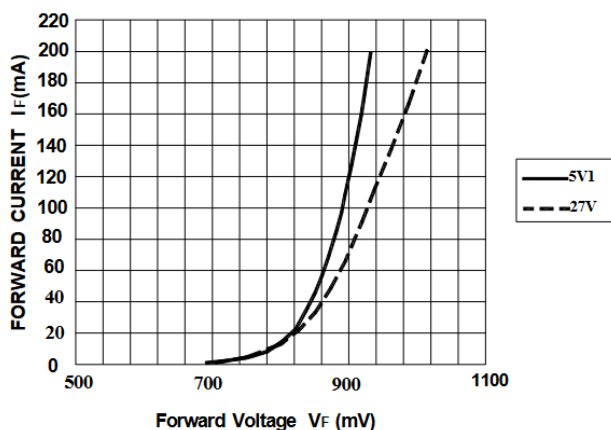
Temperature coefficient

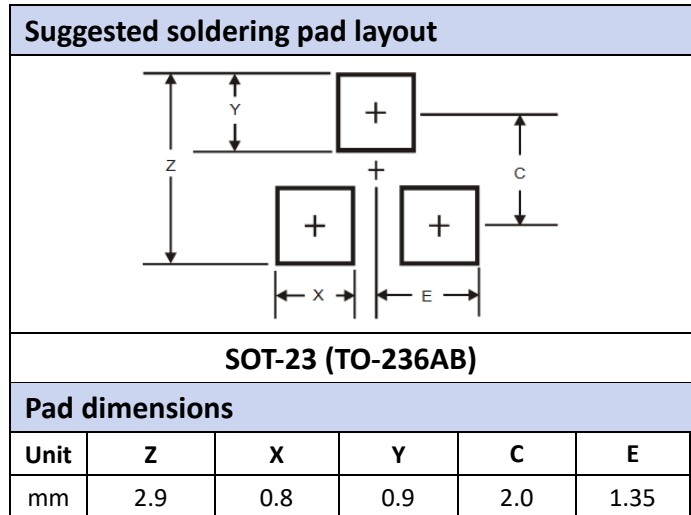
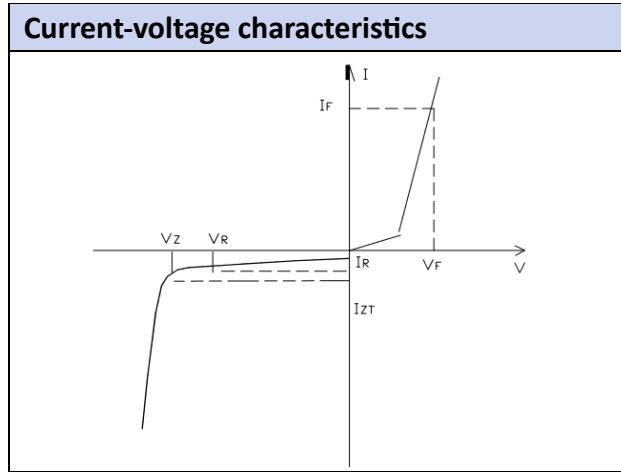


Power derating curve



Typical forward voltage





Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
BZX84C2V4CA ~ BZX84C75CA	SOT-23	3000 pcs / reel	---

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