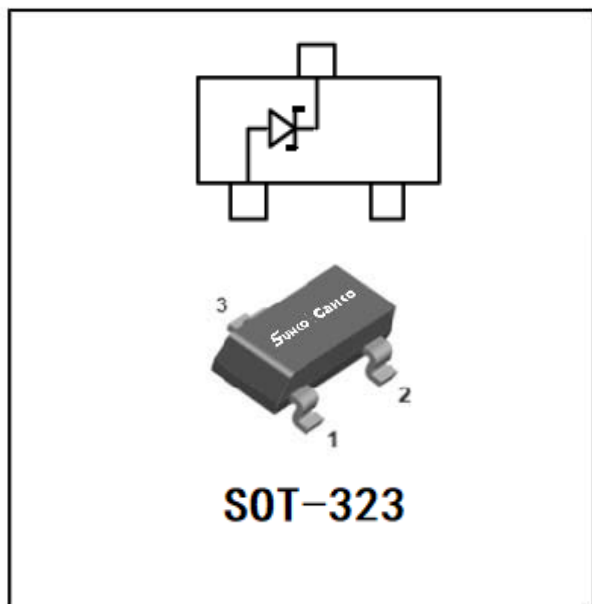


Zener Diode



Features

- 200mW power dissipation rating.
- Epoxy meets UL-94 V-0 flammability rating
- Zener Voltage from 2.4V to 39V.
- Moisture Sensitivity Level 1
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

Mechanical Data

- **Package:** SOT-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■Limiting Values (Absolute Maximum Rating, Ta=25°C Unless otherwise specified)

Characteristic	Symbol	Value	Units
Maximum Forward Voltage@I _F =10mA	V _F	0.9	V
Power Dissipation	PD	200	mW
Peak Forward Surge Current*	I _{FSM}	2.0	A
Thermal Resistance	R _{thJA}	625	°C /W
Operation Temperature	T _J	-55~+150	°C
Storage Temperature Range	TSTG	-55~+150	°C

*Measured on 8.3ms, single half sine-wave

■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZX84C2V4W THRU BZX84C39W	F2	Approximate 0.005	3000	30000	120000	7" reel

BZX84C2V4W THRU BZX84C39W

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type Number	Marking Code	Nominal Zener Voltage			Maximum Zener Impedance				Max Reverse Leakage Current	
		V _Z (V)@ I _{ZT}			Z _{ZT} @I _{ZT}		Z _{Zk} @I _{Zk}		I _R (uA)@ V _R	
		Min.	Typ.	Max.	Z _{ZT} (Ω)	I _{ZT} (mA)	Z _{Zk} (Ω)	I _{Zk} (mA)	Max	V _R (V)
BZX84C2V4W	KRB	2.28	2.4	2.52	100	5	600	1	50	1
BZX84C2V7W	KRC	2.5	2.7	2.9	100	5	600	1	20	1
BZX84C3V0W	KRD	2.8	3.0	3.2	95	5	600	1	10	1
BZX84C3V3W	KRE	3.1	3.3	3.5	95	5	600	1	5	1
BZX84C3V6W	KRF	3.4	3.6	3.8	90	5	600	1	5	1
BZX84C3V9W	KRG	3.7	3.9	4.1	90	5	600	1	3	1
BZX84C4V3W	KRH	4.0	4.3	4.6	90	5	600	1	3	1
BZX84C4V7W	KR1	4.4	4.7	5.0	80	5	500	1	3	2
BZX84C5V1W	KR2	4.8	5.1	5.4	60	5	480	1	2	2
BZX84C5V6W	KR3	5.2	5.6	6.0	40	5	400	1	1	2
BZX84C6V2W	KR4	5.8	6.2	6.6	10	5	150	1	3	4
BZX84C6V8W	KR5	6.4	6.8	7.2	15	5	80	1	2	4
BZX84C7V5W	KR6	7.0	7.5	7.9	15	5	80	1	1	5
BZX84C8V2W	KR7	7.7	8.2	8.7	15	5	80	1	0.7	5
BZX84C9V1W	KR8	8.5	9.1	9.6	15	5	100	1	0.5	6
BZX84C10W	KR9	9.4	10	10.6	20	5	150	1	0.2	7
BZX84C11W	KP1	10.4	11	11.6	20	5	150	1	0.1	8
BZX84C12W	KP2	11.4	12	12.7	25	5	150	1	0.1	8
BZX84C13W	KP3	12.4	13	14.1	30	5	170	1	0.1	8
BZX84C15W	KP4	13.8	15	15.6	30	5	200	1	0.1	10.5
BZX84C16W	KP5	15.3	16	17.1	40	5	200	1	0.1	11.2
BZX84C18W	KP6	16.8	18	19.1	45	5	225	1	0.1	12.6
BZX84C20W	KP7	18.8	20	21.2	55	5	225	1	0.1	14
BZX84C22W	KP8	20.8	22	23.3	55	5	250	1	0.1	15.4
BZX84C24W	KP9	22.8	24	25.6	70	5	250	1	0.1	16.8
BZX84C27W	KPA	25.1	27	28.9	80	2	300	1	0.1	18.9
BZX84C30W	KPB	28	30	32	80	2	300	1	0.1	21.0
BZX84C33W	KPC	31	33	35	80	2	325	1	0.1	23.1
BZX84C36W	KPD	34	36	38	90	2	350	1	0.1	25.2
BZX84C39W	KPE	37	39	41	130	2	350	1	0.1	27.3

■ Characteristics(Typical)

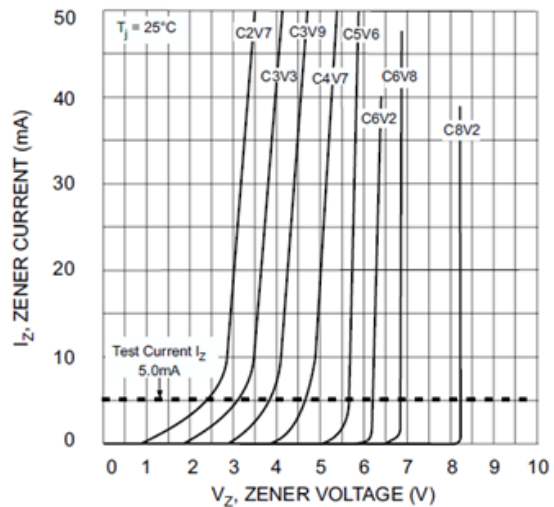
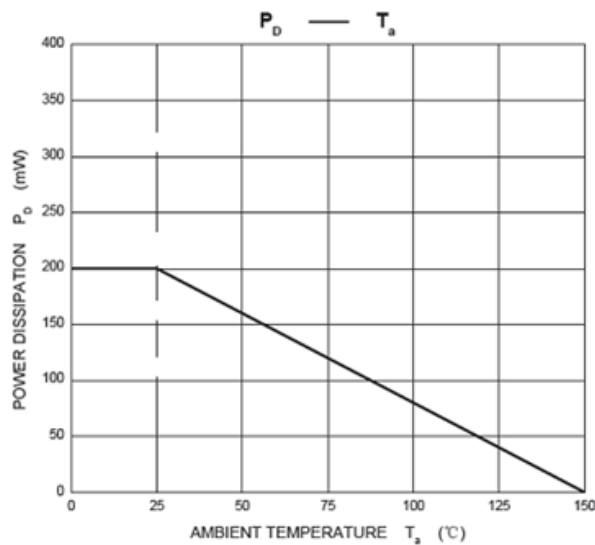


Fig. 3 Zener Breakdown Characteristics

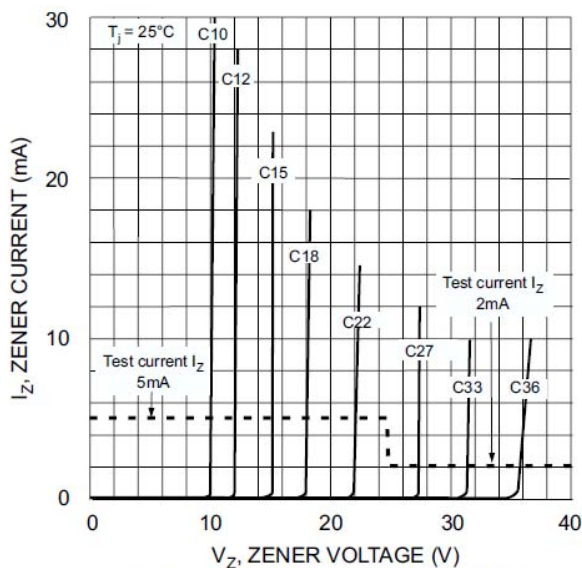


Fig. 4 Zener Breakdown Characteristics

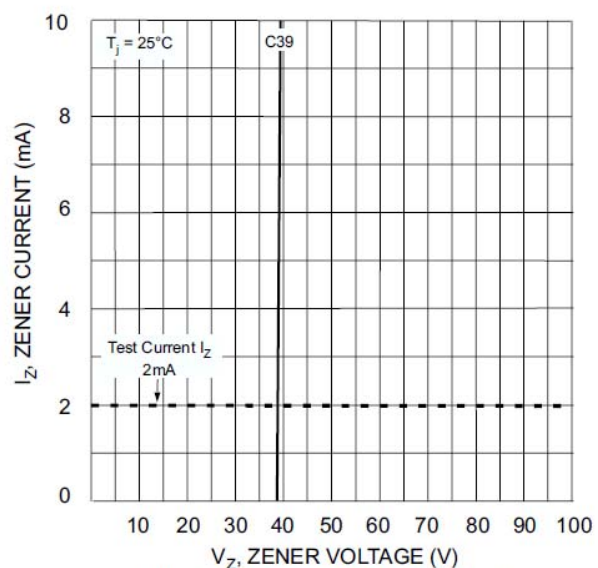


Fig. 5 Zener Breakdown Characteristics

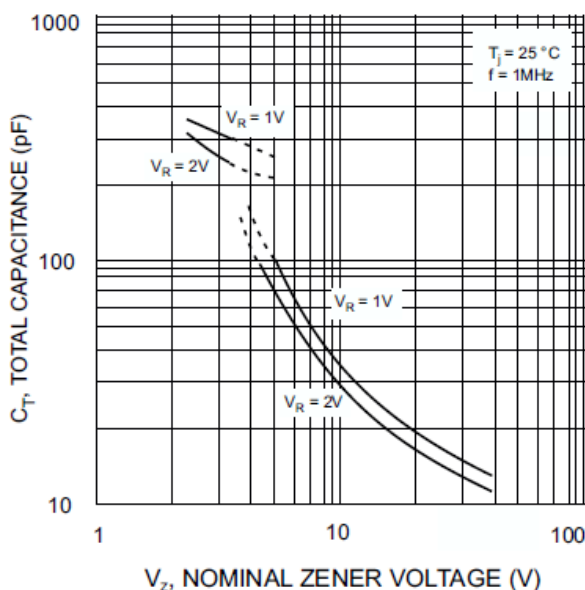
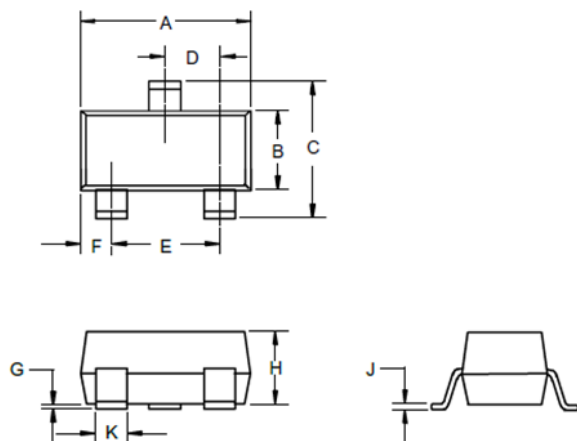


Fig. 1 Total Capacitance vs Nominal Zener Voltage

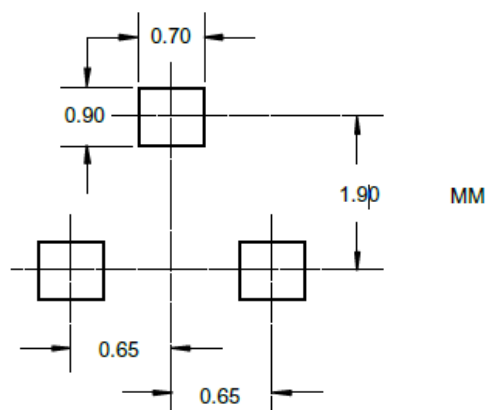
BZX84C2V4W THRU BZX84C39W

■ SOT-323 Package Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

■ SOT-323 Suggested Pad Layout



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