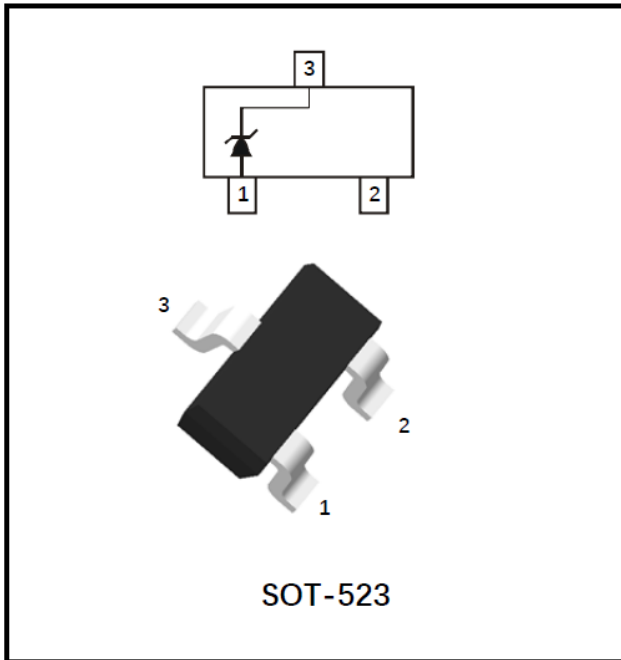


Zener Diode



Features

- High reliability
- Very sharp reverse characteristic
- Moisture Sensitivity Level 1
- Halogen-free
- Surface mount package ideally Suited for Automatic Insertion

Mechanical Data

- **Package:** SOT-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

Characteristic	Symbol	Value	Units
Maximum Forward Voltage @I _F =10mA	V _F	0.9	V
Power Dissipation	P _D	150	mW
Thermal Resistance	R _{thJA}	833	°C /W
Operation Temperature	T _J	-55~+150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

■ Ordering Information (Example)

Preferred P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
BZX84C2V4T THRU BZX84C39T	F2	Approximate 0.0027	3000	30000	120000	7" reel



BZX84C2V4T THRU BZX84C39T

■Electrical Characteristics (Ta=25℃ unless otherwise specified)

Type Number	Marking Code	Nominal Zener Voltage			Maximum Zener Impedance				Max Reverse Leakage Current	
		Vz at I _{ZT} (V)			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)
BZX84C2V4T	RB	2.2	2.4	2.6	100	5	600	1	50	1
BZX84C2V7T	RC	2.5	2.7	2.9	100	5	600	1	20	1
BZX84C3V0T	RD	2.8	3.0	3.2	95	5	600	1	20	1
BZX84C3V3T	RE	3.1	3.3	3.5	95	5	600	1	5	1
BZX84C3V6T	RF	3.4	3.6	3.8	90	5	600	1	5	1
BZX84C3V9T	RG	3.7	3.9	4.1	90	5	600	1	3	1
BZX84C4V3T	RH	4.0	4.3	4.6	90	5	600	1	3	1
BZX84C4V7T	R1	4.4	4.7	5.0	80	5	600	1	3	2
BZX84C5V1T	R2	4.8	5.1	5.4	60	5	500	1	2	2
BZX84C5V6T	R3	5.2	5.6	6.0	40	5	480	1	1	2
BZX84C6V2T	R4	5.8	6.2	6.6	10	5	400	1	3	4
BZX84C6V8T	R5	6.4	6.8	7.2	15	5	150	1	2	4
BZX84C7V5T	R6	7.0	7.5	7.9	15	5	80	1	1	5
BZX84C8V2T	R7	7.7	8.2	8.7	15	5	80	1	0.7	5
BZX84C9V1T	R8	8.5	9.1	9.6	15	5	80	1	0.5	6
BZX84C10T	R9	9.4	10	10.6	20	5	100	1	0.2	7
BZX84C11T	P1	10.4	11	11.6	20	5	150	1	0.1	8
BZX84C12T	P2	11.4	12	12.7	25	5	150	1	0.1	8
BZX84C13T	P3	12.4	13	14.1	30	5	150	1	0.1	8
BZX84C15T	P4	13.8	15	15.6	30	5	170	1	0.1	10.5
BZX84C16T	P5	15.3	16	17.1	40	5	200	1	0.1	11.2
BZX84C18T	P6	16.8	18	19.1	45	5	200	1	0.1	12.6
BZX84C20T	P7	18.8	20	21.2	55	5	225	1	0.1	14
BZX84C22T	P8	20.8	22	23.3	55	5	225	1	0.1	15.4
BZX84C24T	P9	22.8	24	25.6	70	5	250	1	0.1	16.8
BZX84C27T	PA	25.1	27	28.9	80	2	250	0.5	0.1	18.9
BZX84C30T	PB	28	30	32	80	2	300	0.5	0.1	21.0
BZX84C33T	PC	31	33	35	80	2	300	0.5	0.1	23.1
BZX84C36T	PD	34	36	38	90	2	325	0.5	0.1	25.2
BZX84C39T	PE	37	39	41	130	2	350	0.5	0.1	27.3



BZX84C2V4T THRU BZX84C39T

■ Characteristics (Typical)

Fig 1: P_D - T_a Curve

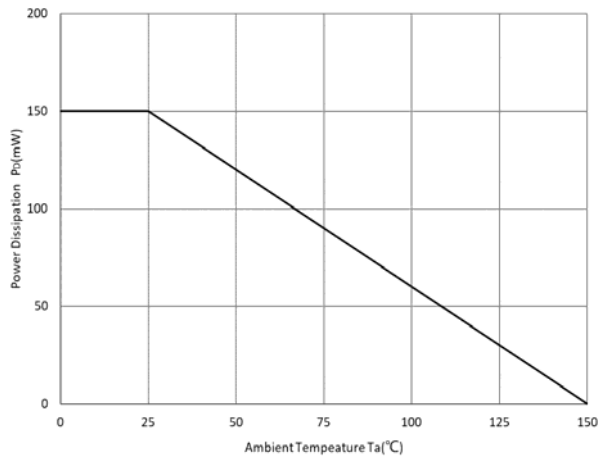


Fig 2: Zener Breakdown Characteristics

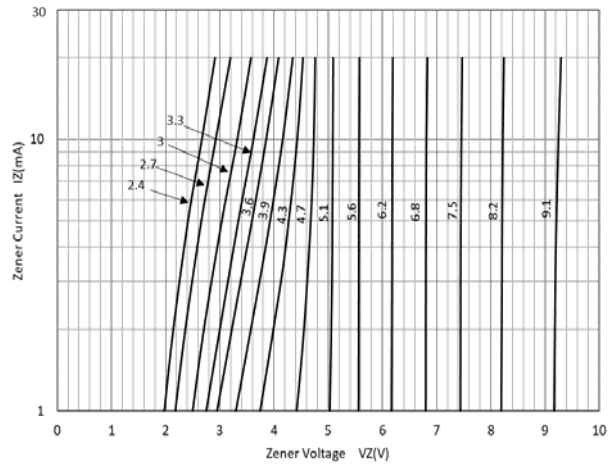


Fig 3: Zener Breakdown Characteristics

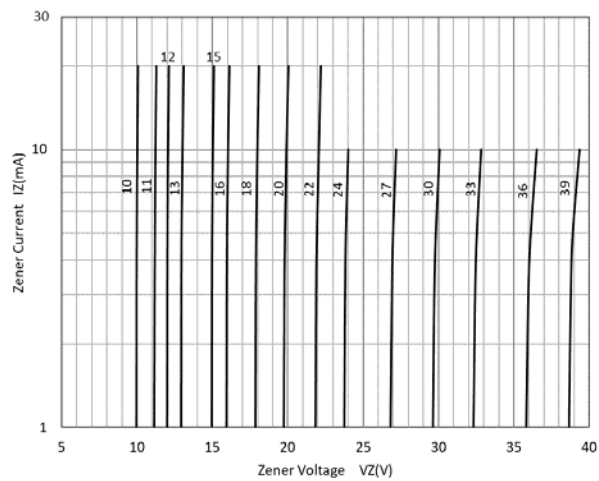
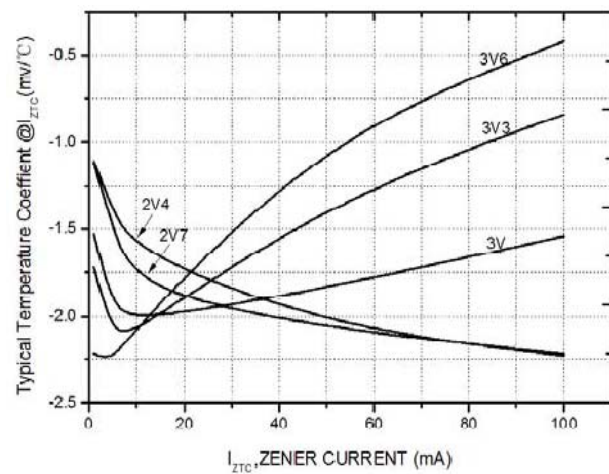


Fig 4 Typical Temperature Coefficient





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Fig 5 Typical Temperature Coefficient

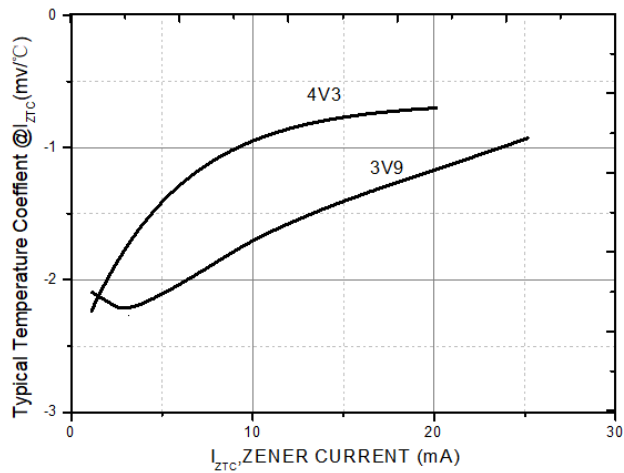


Fig 6: Typical Temperature Coefficient

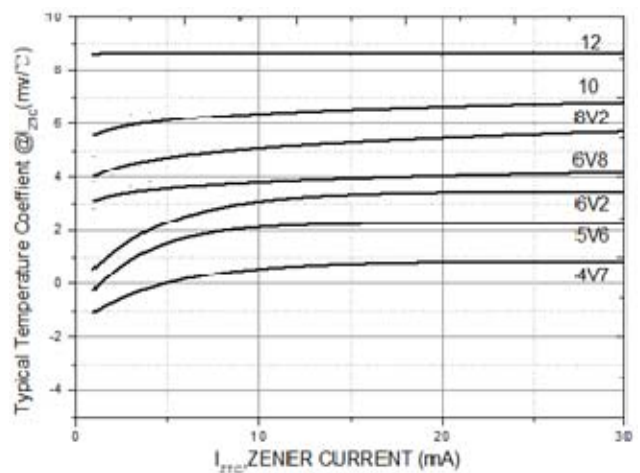


Fig 7 Typical Temperature Coefficient

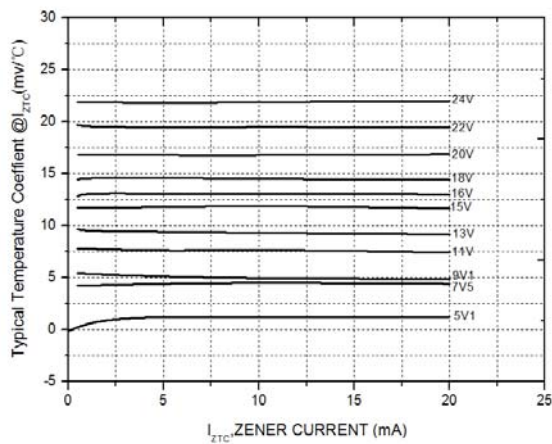
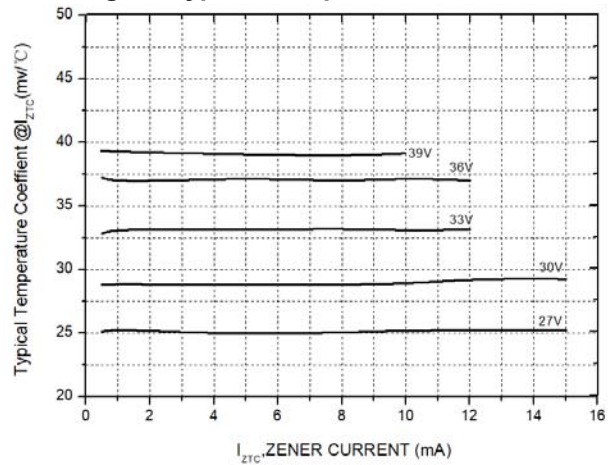


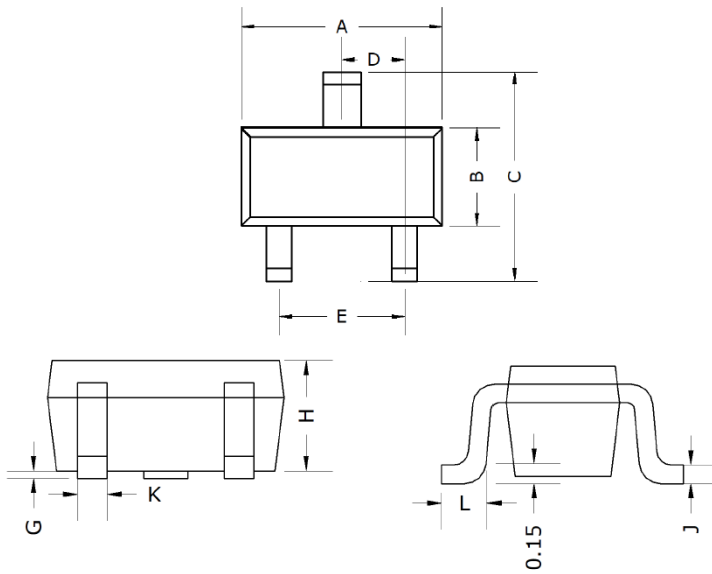
Fig 8: Typical Temperature Coefficient





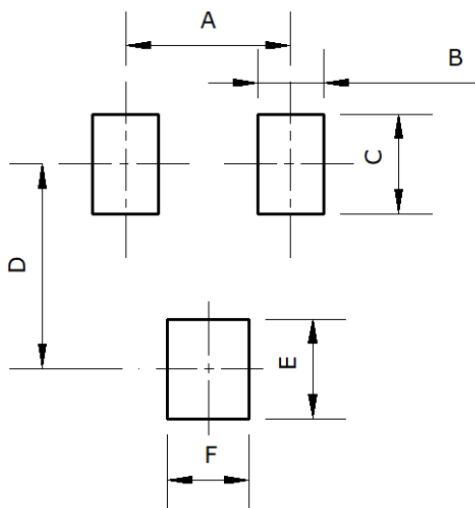
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■ SOT-523 Package Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.50	1.70
B	0.030	0.033	0.75	0.85
C	0.057	0.069	1.45	1.75
D	0.020TYP		0.50TYP	
E	0.035	0.043	0.90	1.10
G	0.000	0.004	0.00	0.10
H	0.024	0.031	0.60	0.80
J	0.004	0.008	0.10	0.20
K	0.006	0.014	0.15	0.35
L	0.010	0.018	0.26	0.46

■ SOT-523 Suggested Pad Layout



DIMENSIONS	
DIM	MM (TYP)
A	1.00
B	0.40
C	0.60
D	1.24
E	0.60
F	0.50



BZX84C2V4T THRU BZX84C39T

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