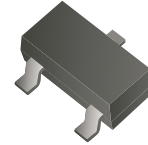


BZX84B2V4-HF Thru. BZX84B75-HF

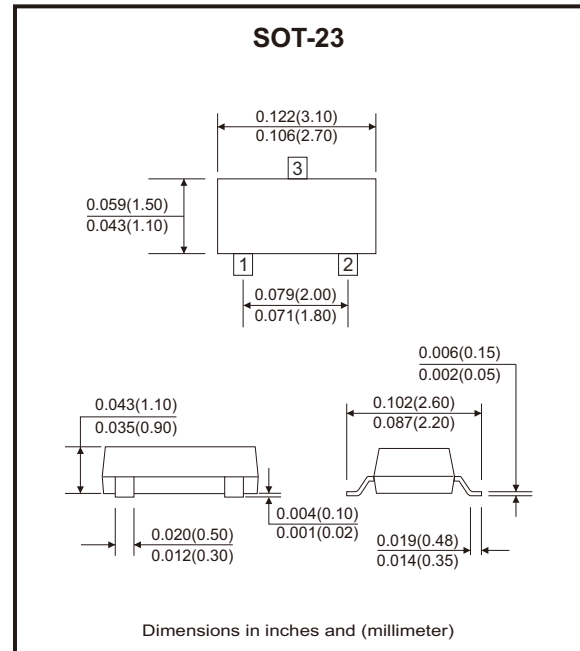
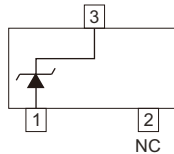
RoHS Device
Halogen Free

**Features**

- Large selection of zener voltages: 2.4V~75V.
- Ultra low-profile package well suited for automated assembly.

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.

Circuit Diagram**Maximum Ratings** ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Forward voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Power dissipation (collector)	P_D	350	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Thermal resistance, junction to case	$R_{\theta JC}$	295	$^{\circ}\text{C/W}$
Operation junction temperature range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^{\circ}\text{C}$

Note: These ratings are limiting values above which the serviceability of the diodes may be impaired.

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

Part Number	Zener Voltage				Maximum Zener Impedance			Maximum Reverse Current		Marking Code
	V _{ZT} @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R @ V _R		
	Min(V)	Typ(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
BZX84B2V4-HF	2.35	2.4	2.45	5.0	100	600	1.0	50	1.0	Z50 , W1
BZX84B2V7-HF	2.65	2.7	2.75	5.0	100	600	1.0	20	1.0	Z51 , W2
BZX84B3V0-HF	2.94	3.0	3.06	5.0	95	600	1.0	10	1.0	Z52 , W3
BZX84B3V3-HF	3.23	3.3	3.37	5.0	95	600	1.0	5.0	1.0	Z53 , W4
BZX84B3V6-HF	3.53	3.6	3.67	5.0	90	600	1.0	5.0	1.0	Z54 , W5
BZX84B3V9-HF	3.82	3.9	3.98	5.0	90	600	1.0	3.0	1.0	Z55 , W6
BZX84B4V3-HF	4.21	4.3	4.39	5.0	90	600	1.0	3.0	1.0	Z56 , W7
BZX84B4V7-HF	4.61	4.7	4.79	5.0	80	500	1.0	3.0	2.0	Z57 , Z1
BZX84B5V1-HF	5.00	5.1	5.20	5.0	60	480	1.0	2.0	2.0	Z58 , Z2Z2
BZX84B5V6-HF	5.49	5.6	5.71	5.0	40	400	1.0	1.0	2.0	Z59 , Z2Z3
BZX84B6V2-HF	6.08	6.2	6.32	5.0	10	150	1.0	3.0	4.0	Z60 , Z2Z4
BZX84B6V8-HF	6.66	6.8	6.94	5.0	15	80	1.0	2.0	4.0	Z61 , Z2Z5
BZX84B7V5-HF	7.35	7.5	7.65	5.0	15	80	1.0	1.0	5.0	Z62 , Z2Z6
BZX84B8V2-HF	8.04	8.2	8.36	5.0	15	80	1.0	0.7	5.0	Z63 , Z2Z7
BZX84B9V1-HF	8.92	9.1	9.28	5.0	15	100	1.0	0.5	6.0	Z64 , Z2Z8
BZX84B10-HF	9.80	10	10.20	5.0	20	150	1.0	0.2	7.0	Z65 , Z2Z9
BZX84B11-HF	10.78	11	11.22	5.0	20	150	1.0	0.1	8.0	Z66 , WH
BZX84B12-HF	11.76	12	12.24	5.0	25	150	1.0	0.1	8.0	Z67 , 2Y2
BZX84B13-HF	12.74	13	13.26	5.0	30	170	1.0	0.1	8.0	Z68 , 2Y3
BZX84B15-HF	14.70	15	15.30	5.0	30	200	1.0	0.05	10.5	Z69 , 2Y4
BZX84B16-HF	15.68	16	16.32	5.0	40	200	1.0	0.05	11.2	Z70 , 2Y5
BZX84B18-HF	17.64	18	18.36	5.0	45	225	1.0	0.05	12.6	Z71 , 2Y6
BZX84B20-HF	19.60	20	20.40	5.0	55	225	1.0	0.05	14.0	Z72 , WO
BZX84B22-HF	21.56	22	22.44	5.0	55	250	1.0	0.05	15.4	Z73 , WP
BZX84B24-HF	23.52	24	24.48	5.0	70	250	1.0	0.05	16.8	Z74 , Y9
BZX84B27-HF	26.46	27	27.54	2.0	80	300	0.5	0.05	18.9	Z75 , Y10
BZX84B30-HF	29.40	30	30.60	2.0	80	300	0.5	0.05	21.0	Z76 , WT
BZX84B33-HF	32.34	33	33.66	2.0	80	325	0.5	0.05	23.0	Z77 , WU

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

Part Number	Zener Voltage				Maximum Zener Impedance			Maximum Reverse Current		Marking Code
	V _{ZT} @ I _{ZT}			I _{ZT}	Z _{zT} @I _{ZT}	Z _{zK} @I _{zK}	I _{zK}	I _R @ V _R		
	Nom(V)	Typ(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
BZX84B36-HF	35.28	36	36.72	2.0	90	350	0.5	0.05	25.2	Z78 , Y13
BZX84B39-HF	38.22	39	39.78	2.0	130	350	0.5	0.05	27.3	Z79 , Y14
BZX84B43-HF	42.14	43	43.86	2.0	150	375	0.5	0.05	30.1	Z80 , WY
BZX84B47-HF	46.06	47	47.94	2.0	170	375	0.5	0.05	32.9	Z81 , WZ
BZX84B51-HF	49.98	51	52.02	2.0	180	400	0.5	0.05	35.7	Z82 , XA
BZX84B56-HF	54.88	56	57.12	2.0	200	400	0.5	0.045	39.2	Z83 , XB
BZX84B62-HF	60.76	62	63.24	2.0	215	423	0.5	0.045	43.4	Z84 , XC
BZX84B68-HF	66.64	68	69.36	2.0	240	447	0.5	0.045	47.6	Z85 , XD
BZX84B75-HF	73.50	75	76.50	2.0	255	470	0.5	0.045	52.5	Z86 , XE

Typical Rating and Characteristic Curves (BZX84B2V4-HF Thru. BZX84B75-HF)

Fig.1 - Power Dissipation Curve

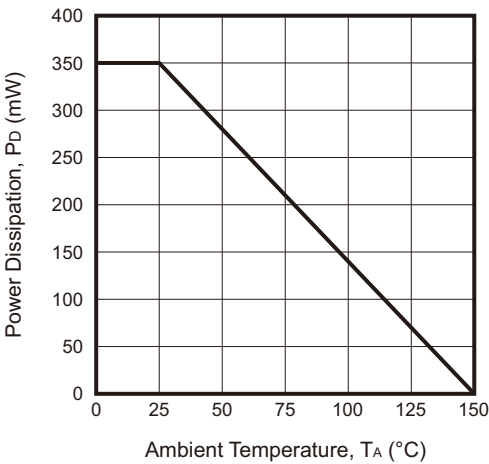


Fig.2 - Typical Zener Breakdown Characteristics

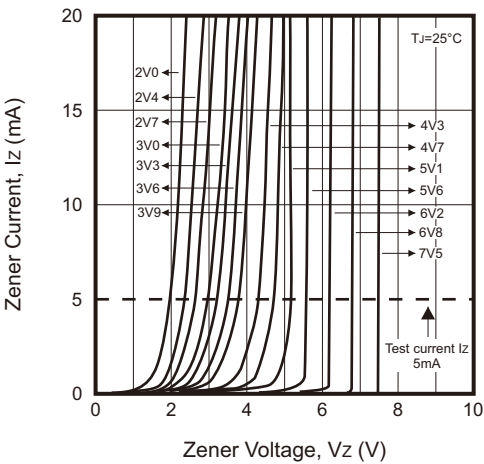


Fig.3 - Typical Zener Breakdown Characteristics

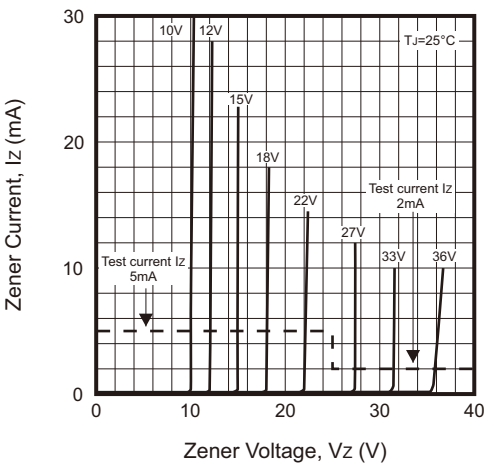
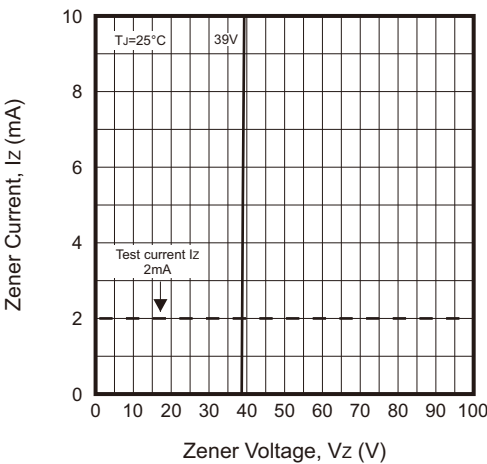
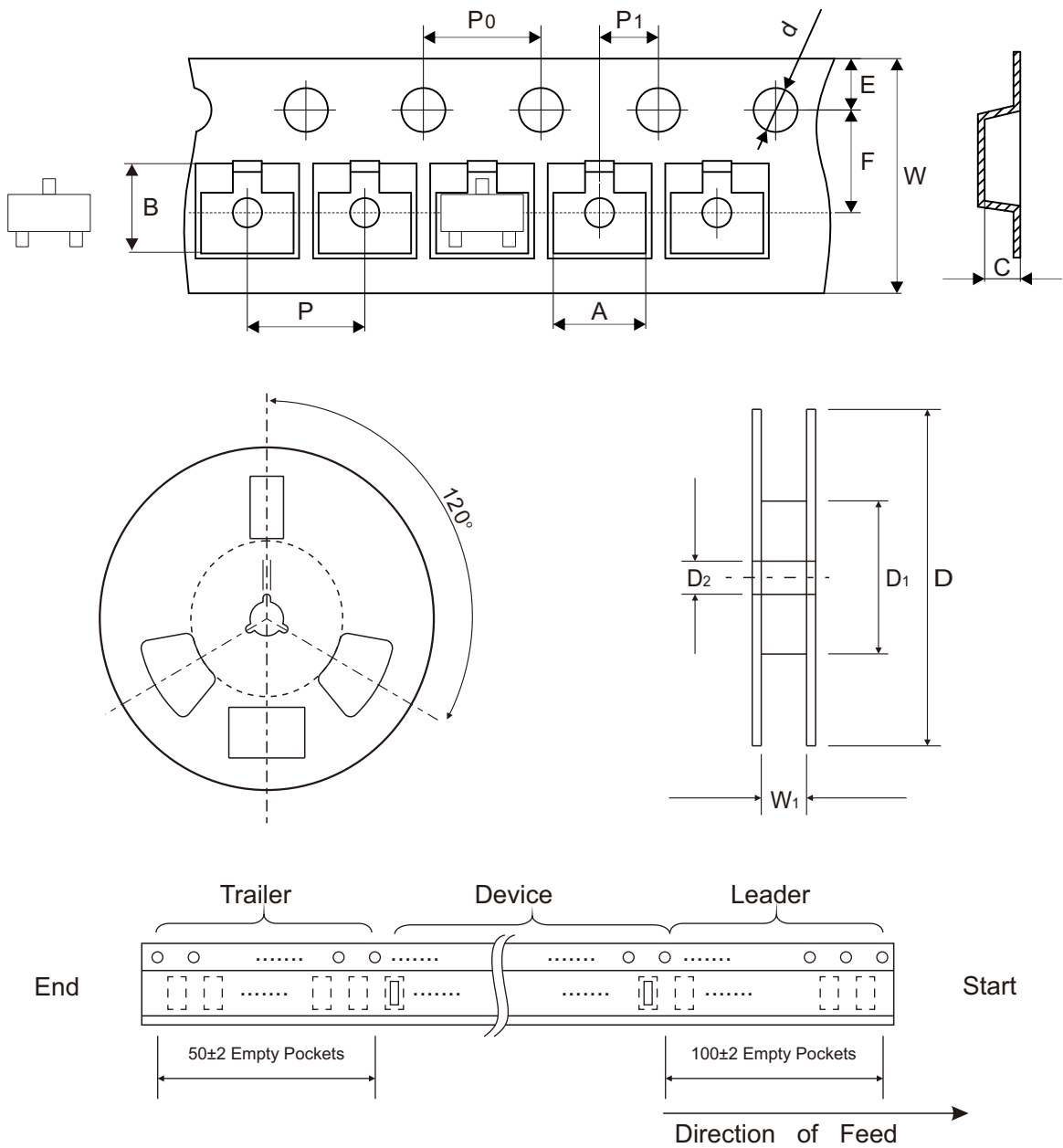


Fig.4 - Typical Zener Breakdown Characteristics



Reel Taping Specification

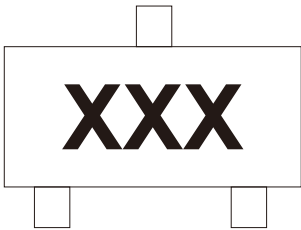


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.374 ± 0.039

Marking Code

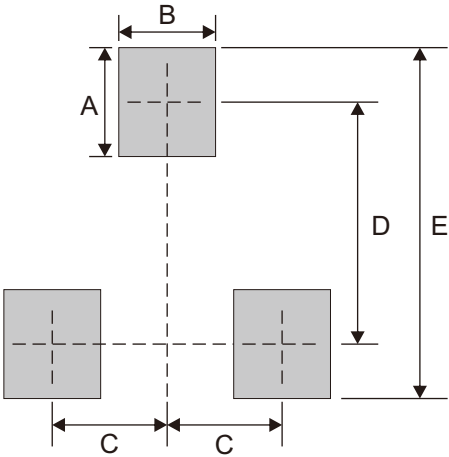
Part Number	Marking Code
BZX84Bxxx-HF Series	See Page 2~3



xx/xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7