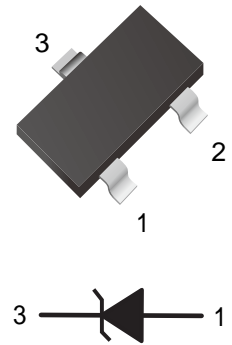


Zener Diodes

Features

- Planar Die Construction
- 350mw Power Dissipation
- Zener Voltages From 2.4V-75V
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case:SOT-23
- Polarity: Color band denotes cathode end
- Approx. Weight:8.1mg

Ordering Information

Part Number	Shipping	Reel
LTZ84B2V4 THRU LTZ84B75-TR3	3000PCS Tape&Reel	7 inches
LTZ84B2V4 THRU LTZ84B75-TR12	12000PCS Tape&Reel	13 inches

Maximum Ratings (Ta=25 unless otherwise noted)

Parameter	Symbol	Value	Units
Maximum Forward Voltage @ I _F =10mA	V _F	0.9	V
Power Dissipation	P _D	350	mW
OperatingJunction Temperature	T _J	150	°C
Peak Forward Surge Surge Current	I _{FSM}	2.0	A
StorageTemperature Rance	T _{stg}	-55 to 150	°C
Thermal Resistance Junction to Ambient	R _{θJA}	357	°C/W



Electrical characteristics (Ta=25 unless otherwise specified)

Part Number	Marking	Nominal Zener Voltage			Max. Zener Impedance				Max.Reverse Leakage Current	
		V _Z (V) @ I _{ZT} ^{*1}			Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R	
		Min.	Nom.	Max.	mA	Ohm	mA	Ohm	μA	V
LTZ84B2V4	W1	2.35	2.4	2.45	5	100	1	600	50	1
LTZ84B2V7	W2	2.65	2.7	2.75	5	100	1	600	20	1
LTZ84B3V0	W3	2.94	3	3.06	5	95	1	600	10	1
LTZ84B3V3	W4	3.23	3.3	3.37	5	95	1	600	5	1
LTZ84B3V6	W5	3.53	3.6	3.67	5	90	1	600	5	1
LTZ84B3V9	W6	3.82	3.9	3.98	5	90	1	600	3	1
LTZ84B4V3	W7	4.21	4.3	4.39	5	90	1	600	3	1
LTZ84B4V7	Z1	4.61	4.7	4.79	5	80	1	500	3	2
LTZ84B5V1	2Z2	5	5.1	5.2	5	60	1	480	2	2
LTZ84B5V6	2Z3	5.49	5.6	5.71	5	40	1	400	1	2
LTZ84B6V2	2Z4	6.08	6.2	6.32	5	10	1	150	3	4
LTZ84B6V8	2Z5	6.66	6.8	6.94	5	15	1	80	2	4
LTZ84B7V5	2Z6	7.35	7.5	7.65	5	15	1	80	1	5
LTZ84B8V2	2Z7	8.04	8.2	8.36	5	15	1	80	0.7	5
LTZ84B9V1	2Z8	8.92	9.1	9.28	5	15	1	100	0.5	6
LTZ84B10	2Z9	9.8	10	10.2	5	20	1	150	0.2	7
LTZ84B11	WH	10.78	11	11.22	5	20	1	150	0.1	8
LTZ84B12	2Y2	11.76	12	12.24	5	25	1	150	0.1	8
LTZ84B13	2Y3	12.74	13	13.26	5	30	1	170	0.1	8
LTZ84B15	2Y4	14.7	15	15.3	5	30	1	200	0.1	10.5
LTZ84B16	2Y5	15.68	16	16.32	5	40	1	200	0.1	11.2
LTZ84B18	2Y6	17.64	18	18.36	5	45	1	225	0.1	12.6
LTZ84B20	WO	19.6	20	20.4	5	55	1	225	0.1	14
LTZ84B22	WP	21.56	22	22.44	5	55	1	250	0.1	15.4
LTZ84B24	Y9	23.52	24	24.48	5	70	1	250	0.1	16.8
LTZ84B27	Y10	26.46	27	27.54	2	80	0.5	300	0.1	18.9
LTZ84B30	WT	29.4	30	30.6	2	80	0.5	300	0.1	21
LTZ84B33	WU	32.34	33	33.66	2	80	0.5	325	0.1	23.1
LTZ84B36	Y13	35.28	36	36.72	2	90	0.5	350	0.1	25.2
LTZ84B39	Y14	38.22	39	39.78	2	130	0.5	350	0.1	27.3
LTZ84B43	WY	42.14	43	43.86	2	150	0.5	375	0.1	30.1
LTZ84B47	WZ	45.83	47	48.17	2	170	0.5	375	0.1	32.9
LTZ84B51	XA	49.73	51	52.27	2	180	0.5	400	0.1	35.7
LTZ84B56	XB	54.6	56	57.4	2	200	0.5	425	0.05	39.2
LTZ84B62	XC	60.45	62	63.55	2	215	0.5	450	0.05	43.4
LTZ84B68	XD	66.3	68	69.7	2	240	0.5	475	0.05	47.6
LTZ84B75	XE	73.13	75	76.87	2	255	0.5	500	0.05	52.5

*1Pulse Width = 10 ms



Characteristics Curves

Fig.1 Typical Forward Voltage Effect Of Zener Voltage

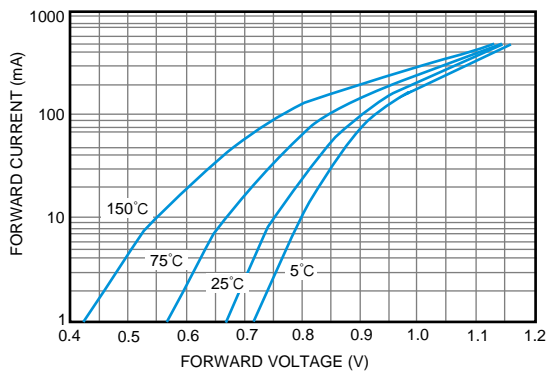


Fig.2 On Zener Impedance

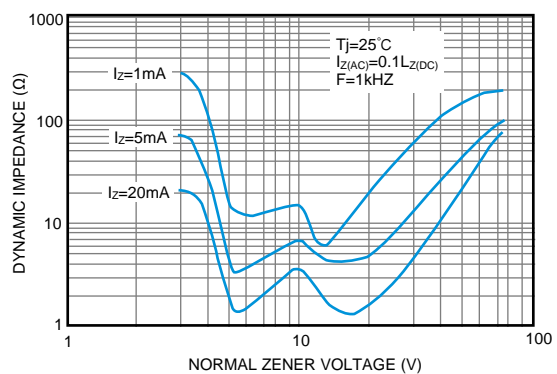


Fig.3 Power Dissipation Vs. Ambient Temp

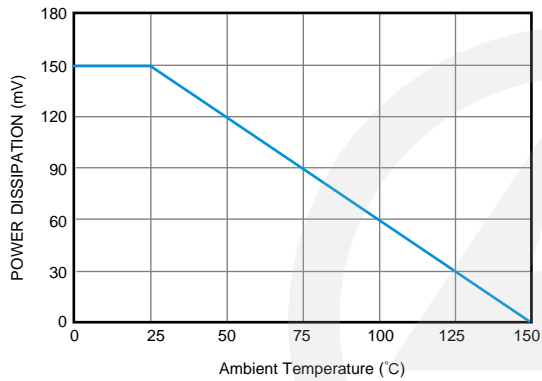


Fig.4 Typical Capacitance

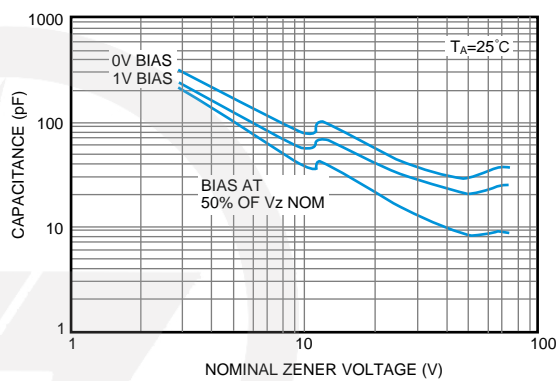


Fig.5 Zener Breakdown Characteristics

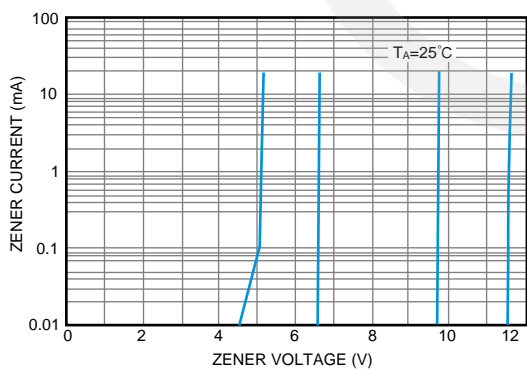


Fig.6 Zener Breakdown Characteristics

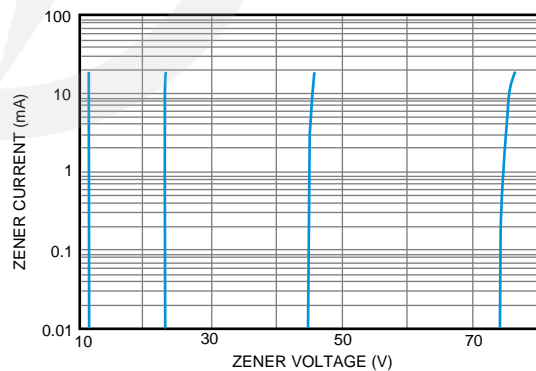
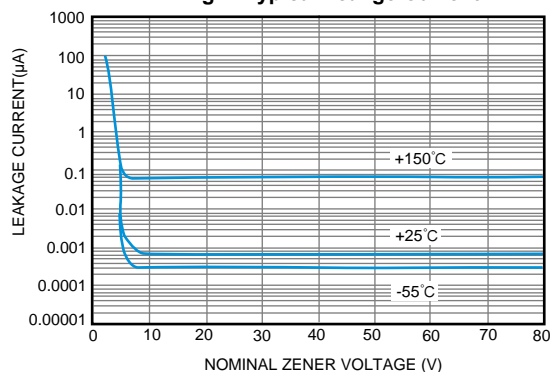
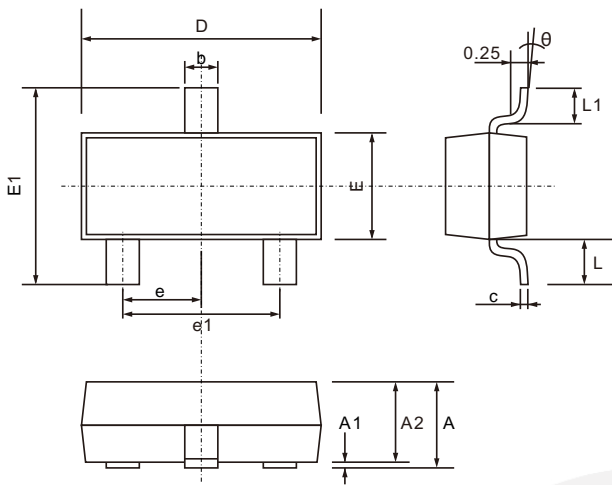


Fig.7 Typical Leakage Current



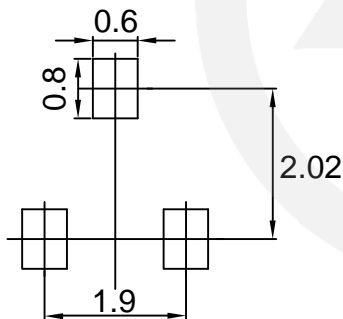
SOT-23 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.200
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.200
D	2.700	3.100
E	1.200	1.400
E1	2.200	2.600
e	0.950 TYP.	
e1	1.750	2.050
L	0.550 TYP.	
L1	0.300	0.500
θ	0°	8°

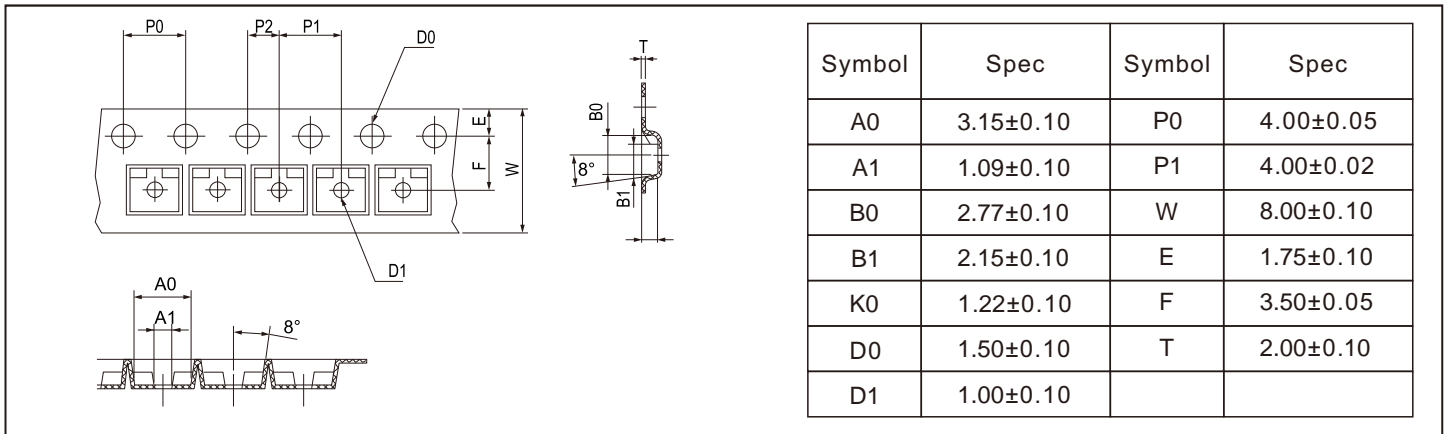
SOT-23 Suggested Pad Layout



Note:
 1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm
 3. The pad layout is for reference purpose only.

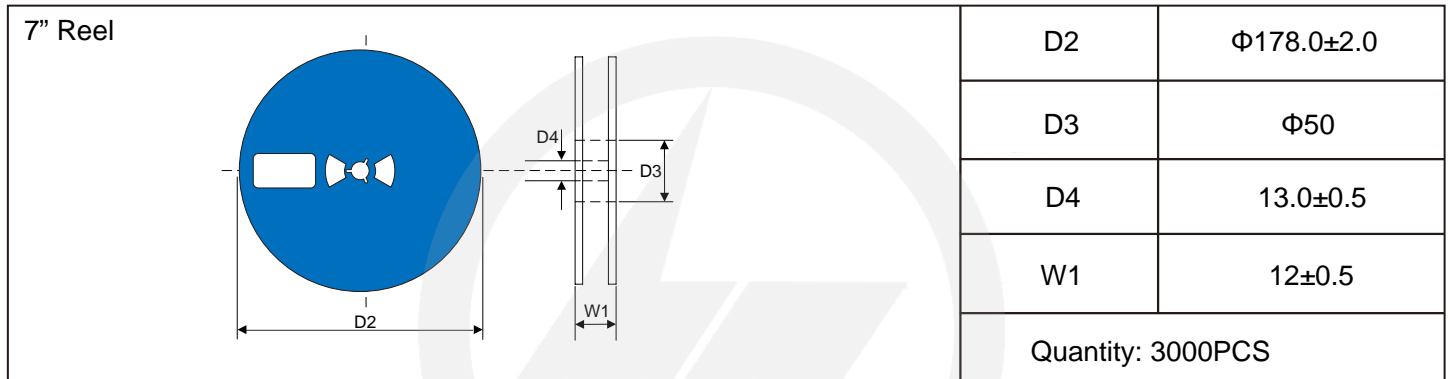
Carrier Tape Dimensions

Unit : mm



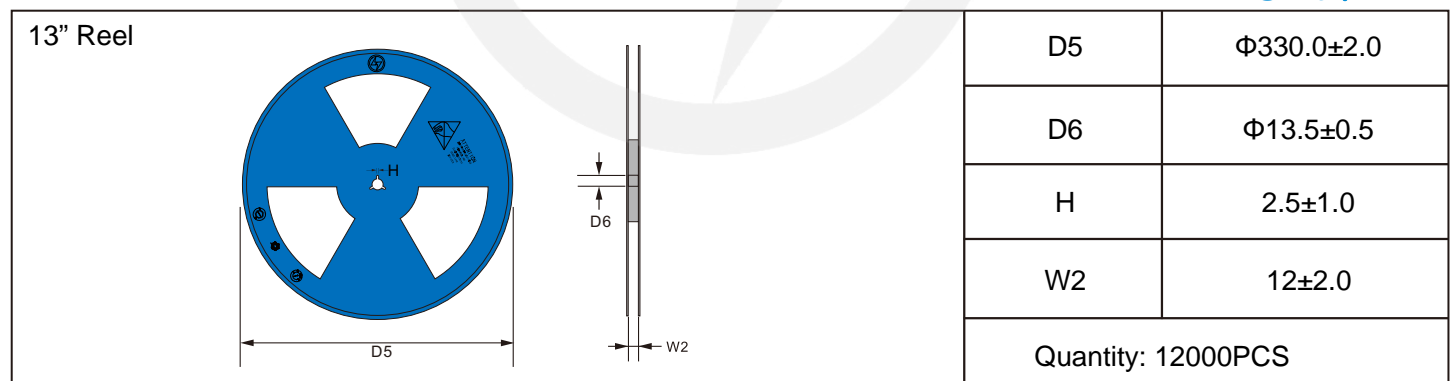
Reel Dimensions

Unit : mm

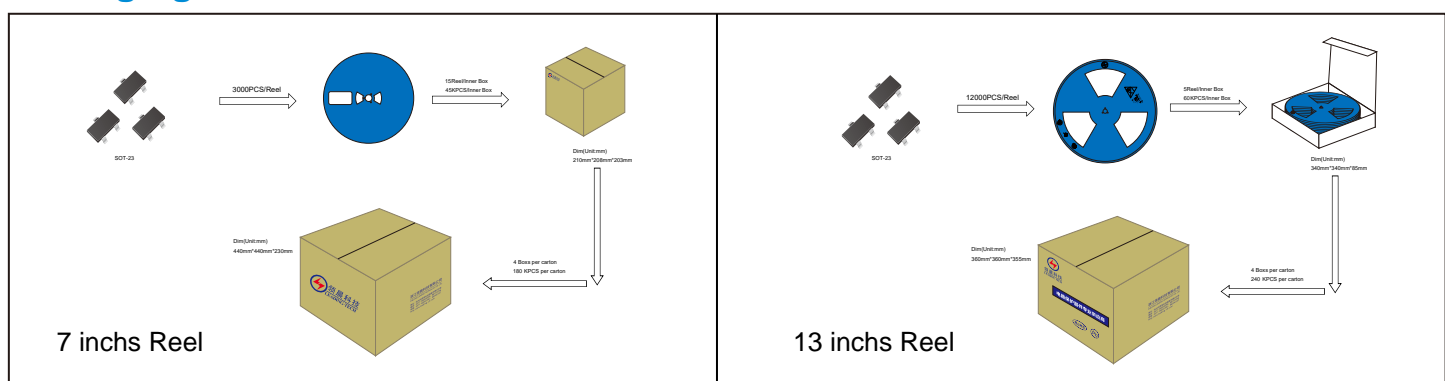


Reel Dimensions

Unit : mm



Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat	
-Temperature Min ($T_{S\ min}$)	150°C
-Temperature Max ($T_{S\ max}$)	200°C
-Time (min to max) (t_s)	60-180 seconds
$T_{S\ max}$ to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T_L)	217°C
-Time (t_L)	60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision Content	Revision Reason	Revision Person	Note
01	2025.10.10	2025.10.10	3.0	New fle	/	Ding	
02	2026.03.04	2026.03.04	3.1	Package outline E1(max)=2.6mm	/	Ding	