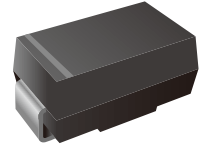


Silicon Planar Zener Diodes

Features

- Total power dissipation: Max. 1.5 W
- Wide zener reverse voltage range 3.6V to 200V
- Small plastic package suitable for surface mounted design
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end



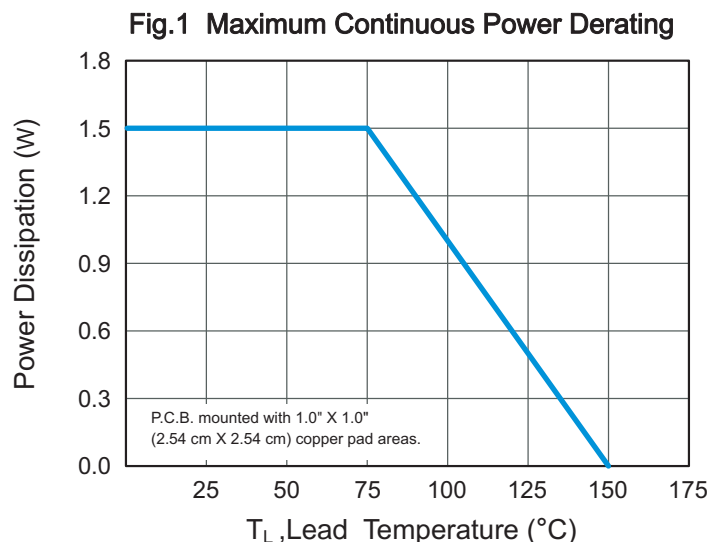
Ordering Information

Part Number	Shipping	Reel
LT59xxB1A5-TR5	5000PCS Tape&Reel	13 inchs
LT59xxB1A5-TR7K5	7500PCS Tape&Reel	13 inchs

Absolute Maximum Ratings and Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation at TA=25°C	P _D	1.5	W
Forward Voltage at I _F = 200 mA	V _F	1.5	V
Junction Temperature Range	T _J	- 55 to + 150	°C
Storage Temperature Range	T _S	- 55 to + 150	°C
Typical Thermal Resistance (Note1)	R _{θJA} R _{θJC} R _{θJL}	100 20 25	°C/W

Note: (1) P.C.B. mounted with 0.2" X 0.2" (5 mm X 5 mm) copper pad areas.



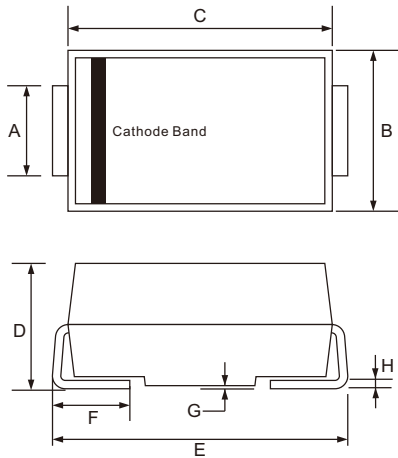


Characteristics at Ta = 25°C

Type	Marking	Zener Voltage Range ⁽¹⁾			I _{ZT}	Dynamic Impedance	Reverse Current		Admissible Zener Current
		V _{ZT} (at I _{ZT})				Z _{ZT} (at I _{ZT})	I _R	at V _R	
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)	I _{ZM} (mA)
LT5914B1A5	914B	3.42	3.6	3.78	104.2	9.0	75	1	416
LT5915B1A5	915B	3.70	3.9	4.10	96.1	7.5	25	1	384
LT5916B1A5	916B	4.08	4.3	4.52	87.2	6.0	5	1	348
LT5917B1A5	917B	4.46	4.7	4.94	79.8	5.0	5	1.5	319
LT5918B1A5	918B	4.84	5.1	5.36	73.5	4.0	5	2	294
LT5919B1A5	919B	5.32	5.6	5.88	66.9	2.0	5	3	267
LT5920B1A5	920B	5.89	6.2	6.51	60.5	2.0	5	4	241
LT5921B1A5	921B	6.46	6.8	7.14	55	2.5	5	5.2	220
LT5922B1A5	922B	7.12	7.5	7.88	50	3.0	5	6	200
LT5923B1A5	923B	7.79	8.2	8.61	45.7	3.5	5	6.5	182
LT5924B1A5	924B	8.60	9.1	9.56	41.2	4.0	5	7	164
LT5925B1A5	925B	9.50	10	10.5	37.5	4.5	5	8	150
LT5926B1A5	926B	10.4	11	11.6	34	5.5	1	8.4	136
LT5927B1A5	927B	11.4	12	12.6	31.2	6.5	1	9	125
LT5928B1A5	928B	12.35	13	14.1	28.8	7.0	1	9.9	115
LT5929B1A5	929B	13.8	15	15.8	25	9.0	1	11.4	100
LT5930B1A5	930B	15.2	16	16.8	23.4	10	1	12.2	93
LT5931B1A5	931B	16.8	18	19.2	21	12	1	13.7	83
LT5932B1A5	932B	19.0	20	21.2	19	14	1	15.2	75
LT5933B1A5	933B	20.8	22	23.3	17	18	1	16.7	68
LT5934B1A5	934B	22.8	24	25.2	16	19	1	18.2	62
LT5935B1A5	935B	25.3	27	28.9	14	23	1	20.6	55
LT5936B1A5	936B	28.2	30	32.0	12.5	26	1	23	50
LT5937B1A5	937B	31.3	33	34.9	11.4	33	1	25	45
LT5938B1A5	938B	34.2	36	37.9	10.4	38	1	27	41
LT5939B1A5	939B	37.2	39	41.5	9.6	45	1	30	38
LT5940B1A5	940B	40.9	43	45.6	8.7	53	1	33	34
LT5941B1A5	941B	44.9	47	49.8	8.0	67	1	36	31
LT5942B1A5	942B	48.6	51	54.0	7.3	70	1	39	29
LT5943B1A5	943B	53.6	56	58.8	6.7	86	1	42	26
LT5944B1A5	944B	58.9	62	65.6	6.0	100	1	47	24
LT5945B1A5	945B	64.6	68	71.7	5.5	120	1	52	22
LT5946B1A5	946B	71.2	75	78.8	5.0	140	1	57	20
LT5947B1A5	947B	77.9	82	87.0	4.6	160	1	62	18
LT5948B1A5	948B	86.0	91	96.0	4.1	200	1	69	16
LT5949B1A5	949B	95.0	100	105	3.7	250	1	76	15
LT5950B1A5	950B	104	110	116	3.4	300	1	84	13
LT5951B1A5	951B	114	120	127	3.1	380	1	91	12
LT5952B1A5	952B	125	130	142	2.9	450	1	100	11
LT5953B1A5	953B	140	150	157	2.5	600	1	114	10
LT5954B1A5	954B	152	160	168	2.3	700	1	121.6	9.0
LT5955B1A5	955B	168	180	189	2.1	900	1	136.8	8.0
LT5956B1A5	956B	189	200	211	1.9	1200	1	152	7.0

(1) V_{ZT} is tested with pulses (20 ms)

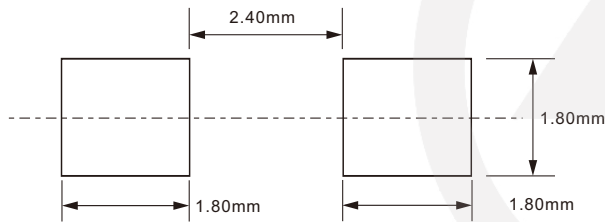
SMA Package Outline



Unit : mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.25	1.65
B	2.30	2.79
C	4.00	4.75
D	1.90	2.50
E	4.70	5.28
F	0.76	1.52
G	0.203 TYP.	
H	0.15	0.31

SMA Suggested Pad Layout

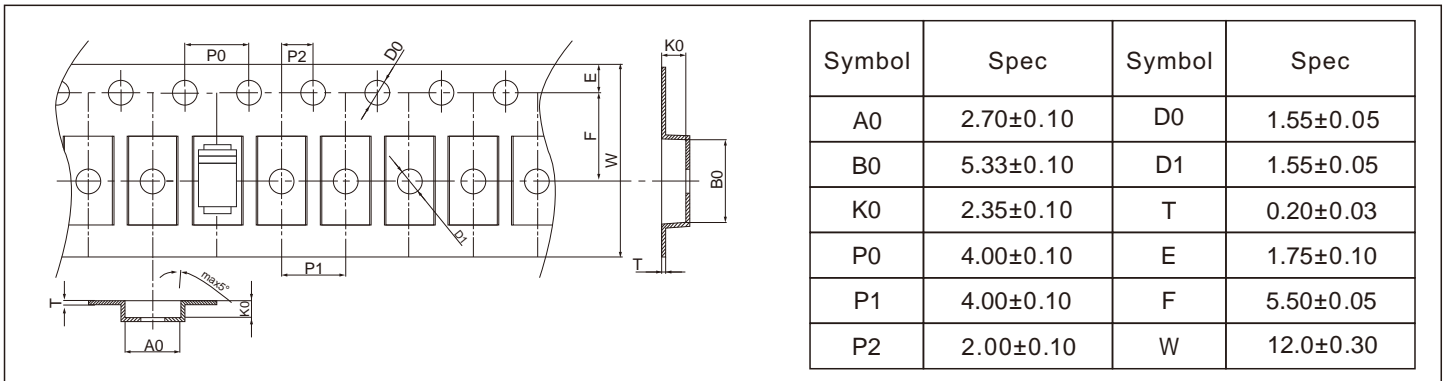


Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only.

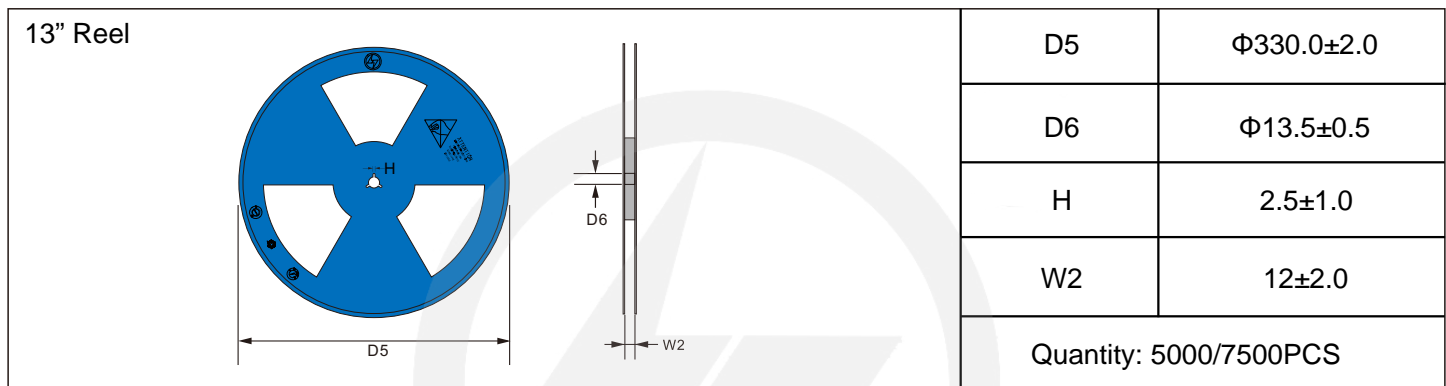
Carrier Tape Dimensions

Unit : mm

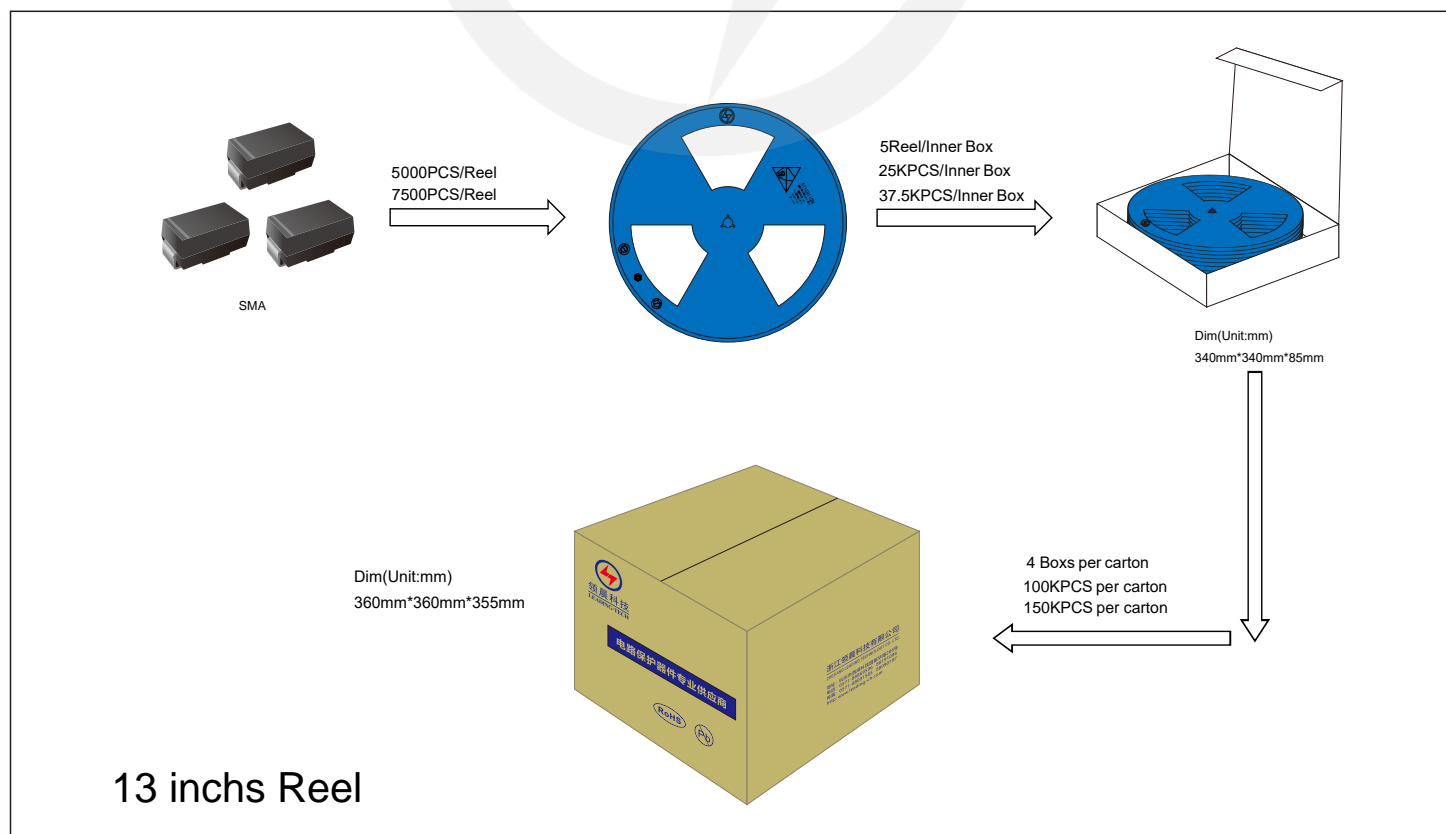


Reel Dimensions

Unit : mm

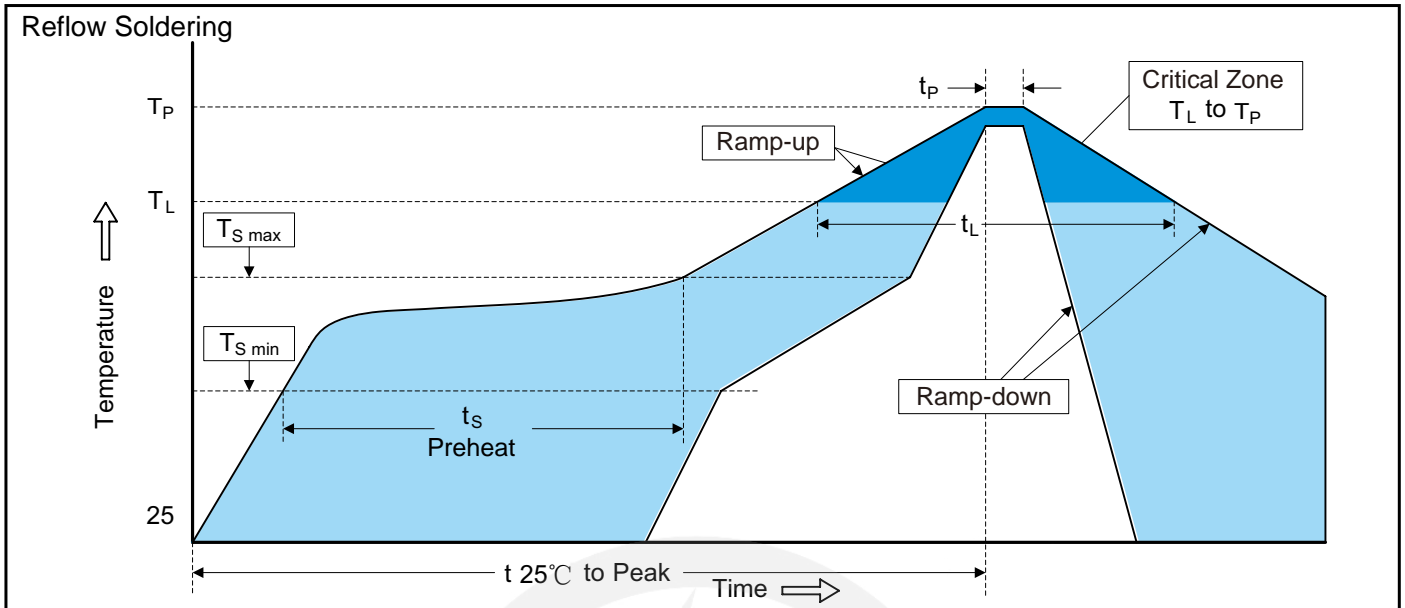


Packaging





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	2024.5.19	2024.5.19	3.0	New File	/	Ding	
02	2025.06.12	2025.06.12	3.1	Update packaging information	/	Ding	