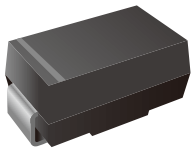
领晨科技
LEADING-TECH

LT4728A1A THRU LT4763A1A

Silicon Planar Zener Diodes

Features



- Total power dissipation: Max. 1 W
- Wide zener reverse voltage range 3.3V to 91V
- 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
LT4728A1A THRU LT4763A1A-TR5	5000PCS Tape&Reel	13 inchs
LT4728A1A THRU LT4763A1A-TR7K5	7500PCS Tape&Reel	13 inchs

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

Parameter	Symbol	Value	Unit
Power Dissipation at T_A=25°C	P_D	1	W
Forward Voltage at I_F = 200 mA	V_F	1.2	V
Junction Temperature Range	T_J	- 55 to + 150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C
Typical Thermal Resistance (Note1)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	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.

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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)
LT4728A1A	728A	3.14	3.3	3.47	75	10	100	1	285
LT4729A1A	729A	3.42	3.6	3.78	69	10	100	1	263
LT4730A1A	730A	3.71	3.9	4.1	64	9.0	50	1	243
LT4731A1A	731A	4.09	4.3	4.52	58	9.0	25	1	219
LT4732A1A	732A	4.47	4.7	4.94	53	8.0	10	1	203
LT4733A1A	733A	4.85	5.1	5.36	49	7.0	10	1	186
LT4734A1A	734A	5.32	5.6	5.88	45	5.0	5	2	170
LT4735A1A	735A	5.89	6.2	6.51	41	2.0	10	3	154
LT4736A1A	736A	6.46	6.8	7.14	37	3.5	10	4	140
LT4737A1A	737A	7.13	7.5	7.88	34	4.0	10	5	127
LT4738A1A	738A	7.79	8.2	8.61	31	4.5	10	6	116
LT4739A1A	739A	8.65	9.1	9.56	28	5.0	10	7	104
LT4740A1A	740A	9.5	10	10.5	25	7.0	10	7	95
LT4741A1A	741A	10.45	11	11.55	23	8.0	5	8	86
LT4742A1A	742A	11.4	12	12.6	21	9.0	5	9	79
LT4743A1A	743A	12.35	13	13.65	19	10	5	10	71
LT4744A1A	744A	14.25	15	15.75	17	14	5	11	63
LT4745A1A	745A	15.2	16	16.8	16	16	5	12	58
LT4746A1A	746A	17.1	18	18.9	14	20	5	13	52
LT4747A1A	747A	19	20	21	13	22	5	15	47
LT4748A1A	748A	20.9	22	23.1	12	23	5	17	43
LT4749A1A	749A	22.8	24	25.2	11	25	5	18	38
LT4750A1A	750A	25.65	27	28.35	9.5	35	5	21	35
LT4751A1A	751A	28.5	30	31.5	8.5	40	5	23	31
LT4752A1A	752A	31.35	33	34.65	7.5	45	5	25	28
LT4753A1A	753A	34.2	36	37.8	7.0	50	5	27	26
LT4754A1A	754A	37.05	39	40.95	6.5	60	5	30	24
LT4755A1A	755A	40.85	43	45.15	6.0	70	1	32	22
LT4756A1A	756A	44.65	47	49.35	5.5	80	1	35	20
LT4757A1A	757A	48.45	51	53.55	5.0	95	1	38	18
LT4758A1A	758A	53.2	56	58.8	4.5	110	1	42	17
LT4759A1A	759A	58.9	62	65.1	4.0	125	1	47	15
LT4760A1A	760A	64.6	68	71.4	3.7	150	1	52	14
LT4761A1A	761A	71.25	75	78.75	3.3	175	1	56	12
LT4762A1A	762A	77.9	82	86.1	3.0	200	1	62	11
LT4763A1A	763A	86.45	91	95.55	2.8	250	1	69	10

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

Characteristics Curves

Fig.1 Peak Pulse Power Rating Curve

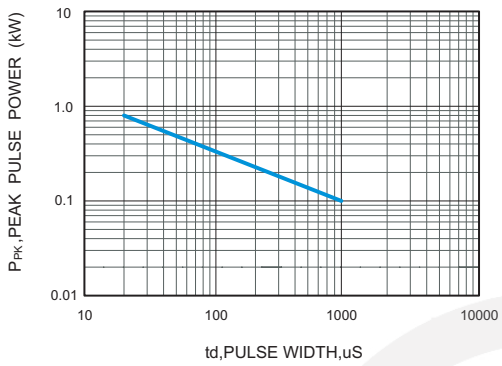


Fig.2 Maximum Continuous Power Derating

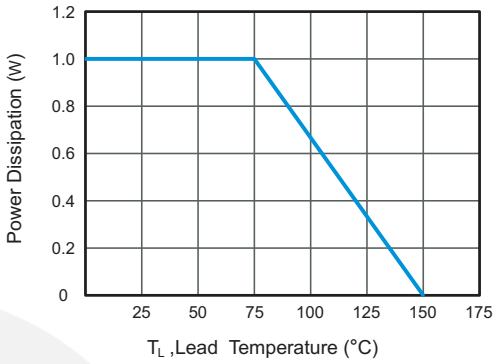


Fig.3 Pulse Waveform

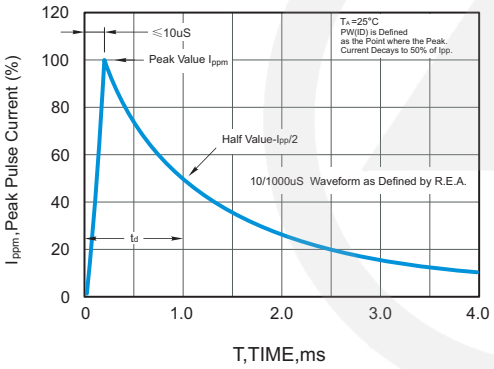


Fig.4 Pulse Waveform

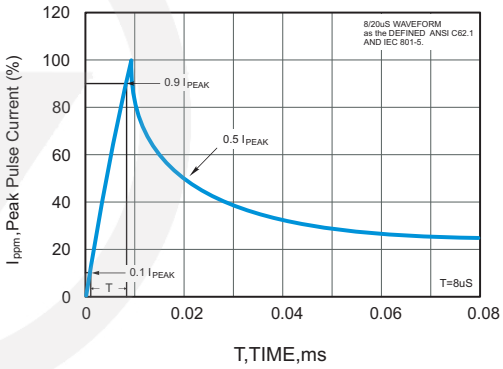


Fig.5 Typical Forward Characteristic

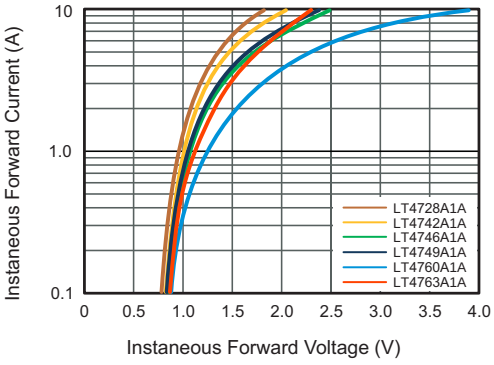


Fig.6 Typical Reverse Characteristics

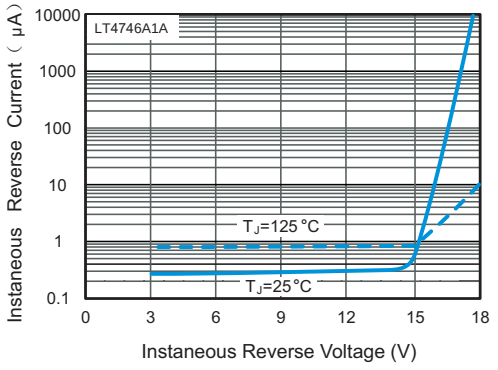
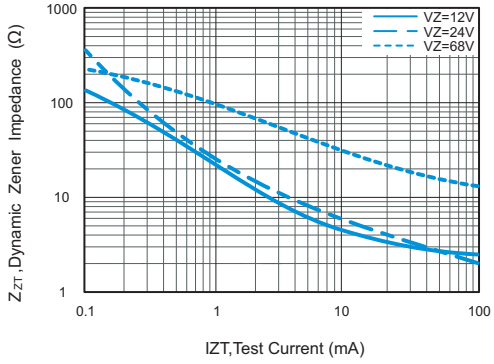
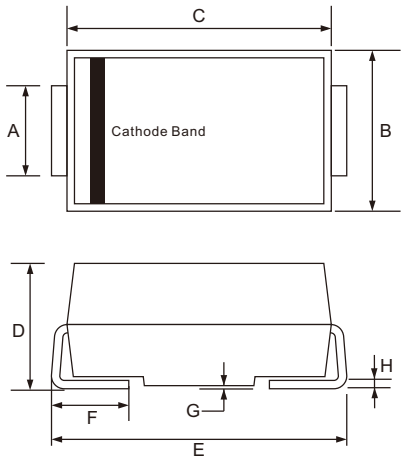


Fig.7 Typical Instantaneous Forward Characteristics



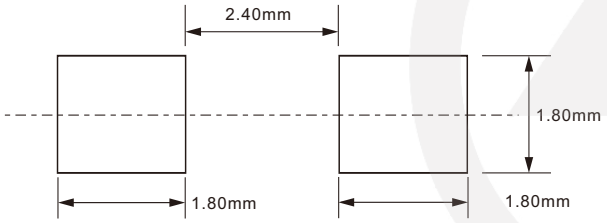
SMA Package Outline



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:± 0.05mm
3.The pad layout is for reference purpose only.

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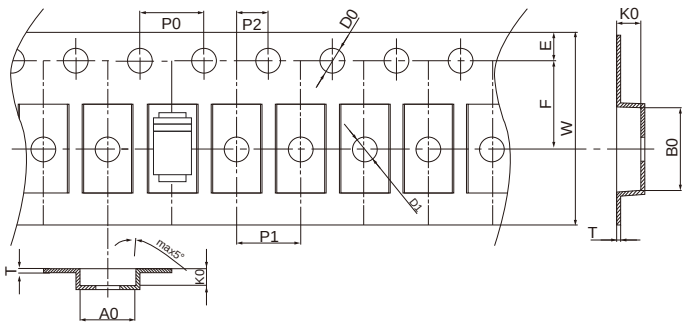
Carrier Tape Dimensions

Unit：mm

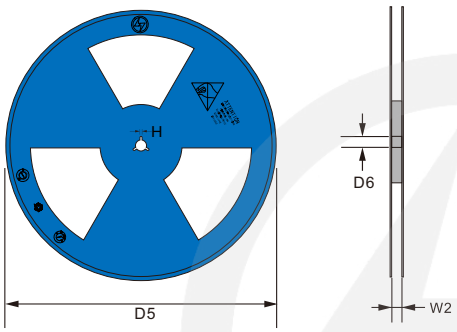


Symbol	Spec	Symbol	Spec
A0	2.70±0.10	D0	1.55±0.05
B0	5.33±0.10	D1	1.55±0.05
K0	2.35±0.10	T	0.20±0.03
P0	4.00±0.10	E	1.75±0.10
P1	4.00±0.10	F	5.50±0.05
P2	2.00±0.10	W	12.0±0.30

Reel Dimensions

Unit：mm

13” Reel

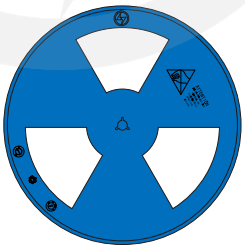


D5	Φ330.0±2.0
D6	Φ13.5±0.5
H	2.5±1.0
W2	12±2.0
Quantity: 5000/7500PCS	

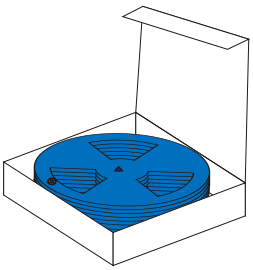
Packaging

SMA

5000PCS/Reel
7500PCS/Reel



5Reel/Inner Box
25KPCS/Inner Box
37.5KPCS/Inner Box



Dim(Unit:mm)
340mm*340mm*85mm

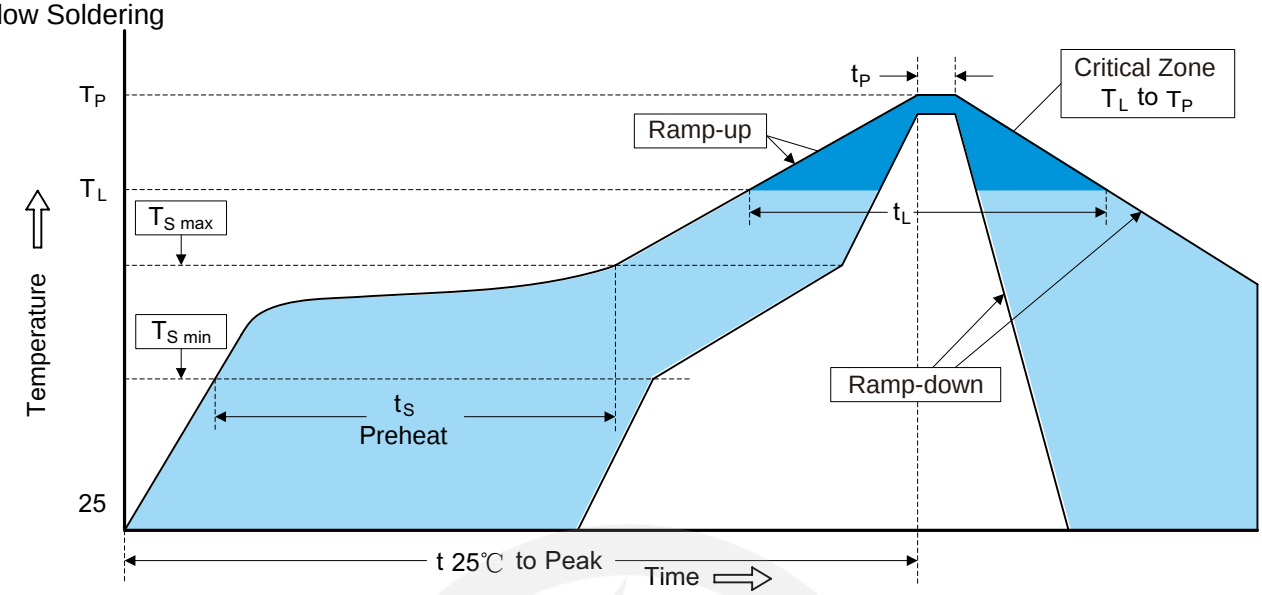
4 Boxs per carton
100KPCS per carton
150KPCS per carton

Dim(Unit:mm)
360mm*360mm*355mm

13 inchs Reel

Recommended Soldering Conditions

Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3℃/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_S)	 150℃ 200℃ 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	 3℃/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	 217℃ 60-150 seconds
Peak Temperature (T_P)	260℃
Time within 5℃ of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ 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	2024.05.19	2024.05.19	3.0	New File	/	Ding	
02	2025.06.16	2025.06.16	3.1	Update packaging information	/	Ding	