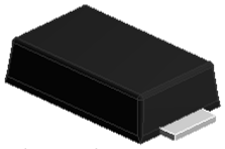
STEIFPOWER TECHNOLOGY

L1N5923 thru L1N5956

Surface Mount Zener Diodes

Vz Range:8.2 to 200V Power Dissipation:1.5W

Features



RoHS COMPLIANT

(SMAF)

- Toal power dissipation:max,1.5W
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile， typical thickness 1.0mm
- For use in stabilizing and clipping circuits with high power rating

Maximum Ratings and Thermal Characteristics

(TA = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Zener current		See Next Table	
Power dissipation at Tamb=50℃	Ptot	1.5	W
Maximum instantaneous forward voltage at 200mA	V_F	1.2	V
Thermal resistance junction to ambient air	Rthja	85	℃/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175	℃

Note1:Thermal resistance from junction to mount,mounted on PCB with 8.0×8.0mm copper pads

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

Part Number	Zener voltage		Test current	Dynamic impedance	Knee current	Knee impedance	Reverse current	Reverse voltage	Max.DC current
	VZ /V		IZT	ZZT	IZK	ZZK	IR(Max)	VR	IZM
	Vz(MIN)	Vz(MAX)	m A	Ω	m A	Ω	μAdc	V	m A
L1N5923	7.79	8.61	45.7	3.5	0.5	400	5	6.5	182
L1N5924	8.65	9.56	41.2	4	0.5	500	5	7	164
L1N5925	9.5	10.5	37.5	4.5	0.25	500	5	8	150
L1N5926	10.45	11.55	34.1	5.5	0.25	550	1	8.4	136
L1N5927	11.4	12.6	31.2	6.5	0.25	550	1	9.1	125
L1N5928	12.35	13.65	28.8	7	0.25	550	1	9.9	115
L1N5929	14.25	15.75	25	9	0.25	600	1	11.4	100
L1N5930	15.2	16.8	23.4	10	0.25	600	1	12.2	93

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	VZ /V		IZT	ZZT	IZK	ZZK	IR(Max)	VR	IZM
	Vz(MIN)	Vz(MAX)	m A	Ω	m A	Ω	μAdc	V	m A
L1N5931	17.1	18.9	20.8	12	0.25	650	1	13.7	83
L1N5932	19	21	18.7	14	0.25	650	1	15.2	75
L1N5933	20.9	23.1	17	17.5	0.25	650	1	16.7	68
L1N5934	22.8	25.2	15.6	19	0.25	700	1	18.2	62
L1N5935	25.65	28.35	13.9	23	0.25	700	1	20.6	55
L1N5936	28.5	31.5	12.5	28	0.25	750	1	22.8	50
L1N5937	31.35	34.65	11.4	33	0.25	800	1	25.1	45
L1N5938	34.2	37.8	10.4	38	0.25	850	1	27.4	41
L1N5939	37.05	40.95	9.6	45	0.25	900	1	29.7	38
L1N5940	40.85	45.15	8.7	53	0.25	950	1	32.7	34
L1N5941	44.65	49.35	8	67	0.25	1000	1	35.8	31
L1N5942	48.45	53.55	7.3	70	0.25	1100	1	38.8	29
L1N5943	53.2	58.8	6.7	86	0.25	1300	1	42.6	26
L1N5944	58.9	65.1	6	100	0.25	1500	1	47.1	24
L1N5945	64.6	71.4	5.5	120	0.25	1700	1	51.7	22
L1N5946	71.25	78.8	5	140	0.25	2000	1	56	20
L1N5947	77.9	86.1	4.6	160	0.25	2500	1	62.2	18
L1N5948	86.45	95.6	4.1	200	0.25	3000	1	69.2	16
L1N5949	95	105	3.7	250	0.25	3100	1	76	15
L1N5950	104.5	115.5	3.4	300	0.25	4000	1	83.6	13
L1N5951	114	126	3.1	380	0.25	4500	1	91.2	12
L1N5952	123.5	136.5	2.9	450	0.25	5000	1	98.8	11
L1N5953	142.5	157.5	2.5	600	0.25	6000	1	114	10
L1N5954	152	168	2.3	700	0.25	6500	1	121.6	9
L1N5955	171	189	2.1	900	0.25	7000	1	136.8	8
L1N5956	190	210	1.9	1200	0.25	8000	1	152	7

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

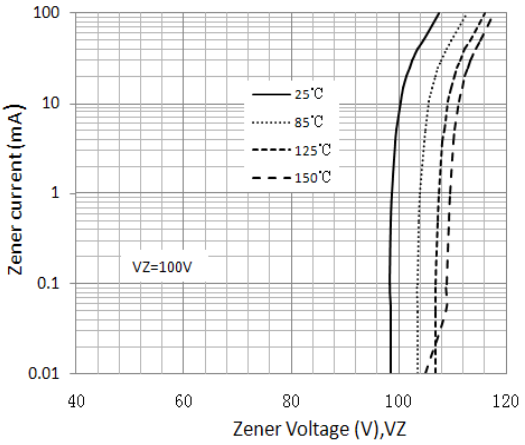

Figure 1. Typical Zener Voltage

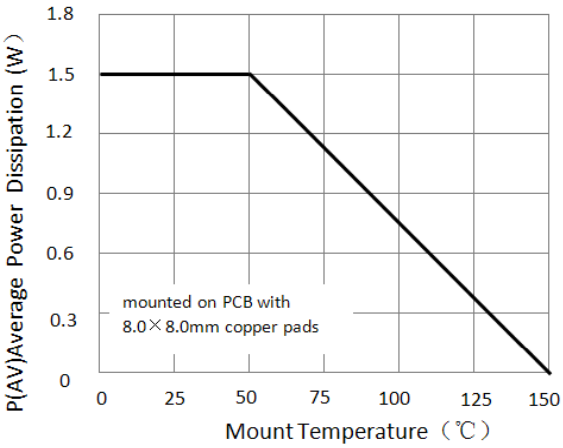

Figure 2. Steady State POWER Derating

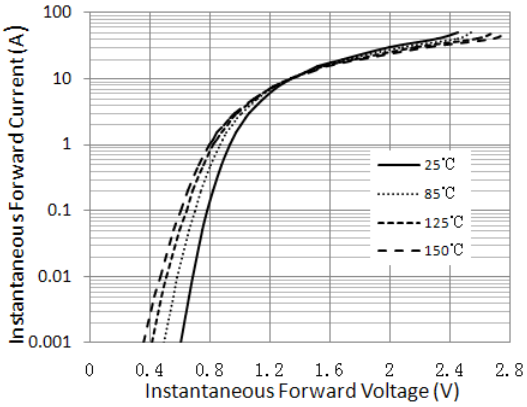

Figure 3. Typical Instantaneous Forward Characteristics

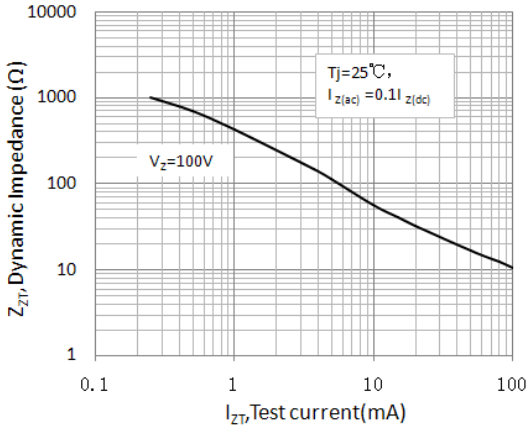

Figure 4. Typical Zener Impedance

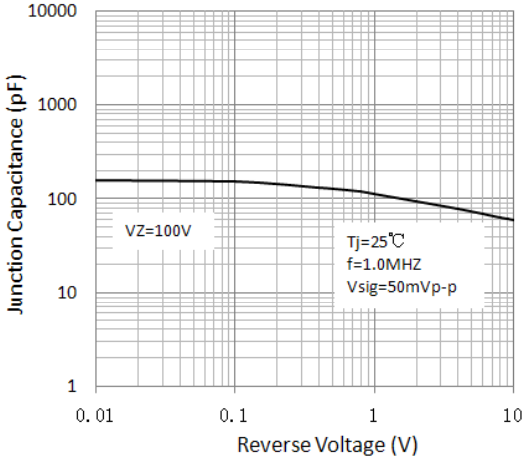

Figure 5. Typical Junction Capacitance

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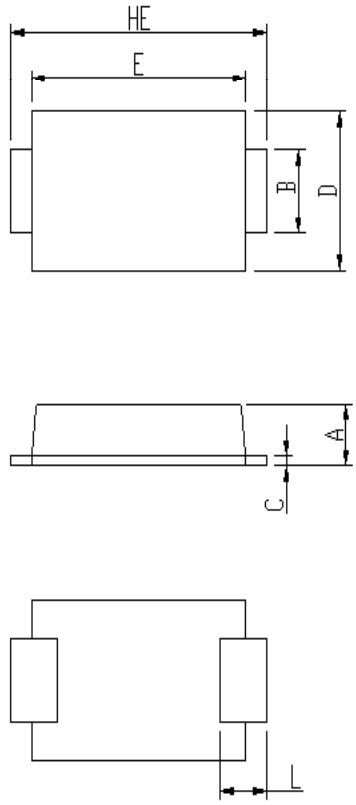
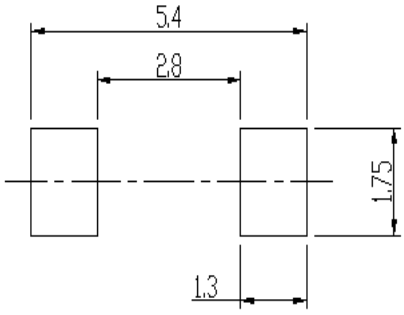
Package Outline Dimensions

in inches (millimeters)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	1.25	1.45	0.049	0.057
C	0.1	0.25	0.004	0.010
D	2.6	2.8	0.102	0.110
E	4.1	4.3	0.161	0.169
L	0.7	1.1	0.028	0.043
HE	4.8	5.2	0.189	0.205

Soldering footprint



Packing Information

Packing quantities:

10,000 pcs/Reel，12mm Tape, 13" Reel

Tape & Reel Specification