STEIFPOWER TECHNOLOGY

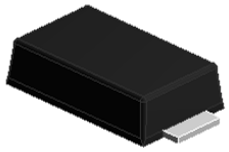
L1N4738 thru LZ1200

Surface Mount Zener Diodes

Vz Range:8.2 to 200V Power Dissipation:1W

Features

RoHS COMPLIANT



(SMAF)

- Toal power dissipation:max,1.0W
- 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=75℃	Ptot	1	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
L1N4738	7.79	8.61	31	4.5	0.5	700	10	6.5	110
L1N4739	8.65	9.56	28	5	0.5	700	10	7	100
L1N4740	9.5	10.5	25	7	0.25	700	10	8	91
L1N4741	10.45	11.55	23	8	0.25	700	5	8.4	83
L1N4742	11.4	12.6	21	9	0.25	700	5	9.1	76
L1N4743	12.35	13.65	19	10	0.25	700	5	9.9	69
L1N4744	14.25	15.75	17	14	0.25	700	5	11.4	61
L1N4745	15.2	16.8	15.5	16	0.25	700	5	12.2	57
L1N4746	17.1	18.9	14	20	0.25	750	5	13.7	50
L1N4747	19	21	12.5	22	0.25	750	5	15.2	45

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
L1N4748	20.9	23.1	11.5	23	0.25	750	5	16.7	41
L1N4749	22.8	25.2	10.5	25	0.25	750	5	18.2	38
L1N4750	25.65	28.35	9.5	35	0.25	750	5	20.6	34
L1N4751	28.5	31.5	8.5	40	0.25	1000	5	22.8	30
L1N4752	31.35	34.65	7.5	45	0.25	1000	5	25.1	27
L1N4753	34.2	37.8	7	50	0.25	1000	5	27.4	25
L1N4754	37.05	40.95	6.5	60	0.25	1000	5	29.7	23
L1N4755	40.85	45.15	6	70	0.25	1500	5	32.7	22
L1N4756	44.65	49.35	5.5	80	0.25	1500	5	35.8	19
L1N4757	48.45	53.55	5	95	0.25	1500	5	38.8	18
L1N4758	53.2	58.8	4.5	110	0.25	2000	5	42.6	16
L1N4759	58.9	65.1	4	125	0.25	2000	5	47.1	14
L1N4760	64.6	71.4	3.7	150	0.25	2000	5	51.7	13
L1N4761	71.25	78.8	3.3	175	0.25	2000	5	56	12
L1N4762	77.9	86.1	3	200	0.25	3000	5	62.2	11
L1N4763	86.45	95.6	2.8	250	0.25	3000	5	69.2	10
L1N4764	95	105	2.5	350	0.25	3000	5	76	9
LZ1110	104.5	115.5	2.3	450	0.25	4000	5	83.6	8.6
LZ1120	114	126	2	550	0.25	4500	5	91.2	7.8
LZ1130	123.5	136.5	1.9	700	0.25	5000	5	98.8	7
LZ1150	142.5	157.5	1.7	1000	0.25	6000	5	114	6.4
LZ1160	152	168	1.6	1100	0.25	6500	5	121.6	5.8
LZ1180	171	189	1.4	1200	0.25	7000	5	136.8	5.2
LZ1200	190	210	1.2	1900	0.25	9990	5	152	4.7

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

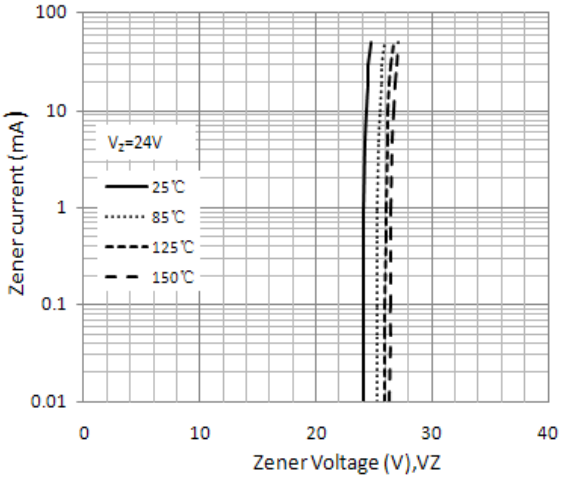


Figure 1. Typical Zener Voltage

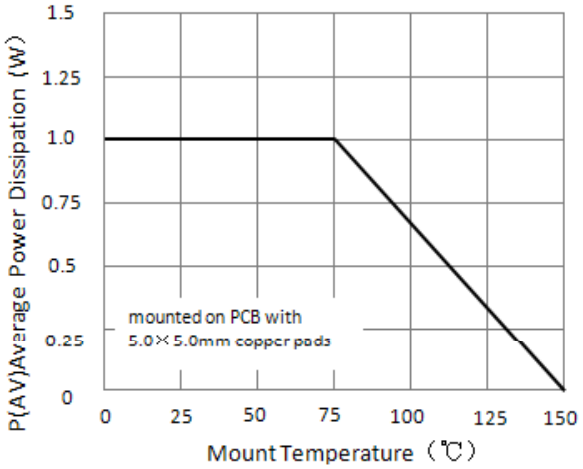


Figure 2. Steady State POWER Derating

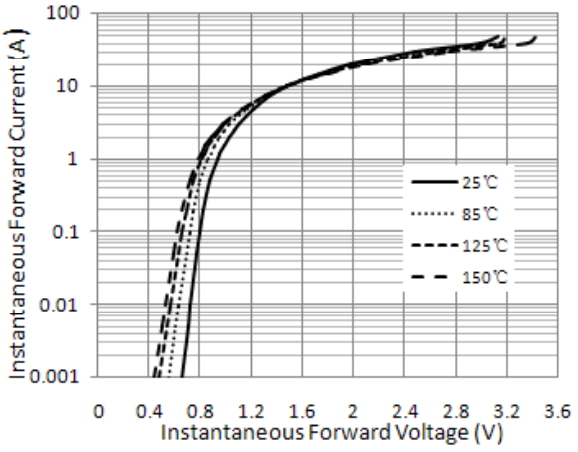


Figure 3. Typical Instantaneous Forward Characteristics

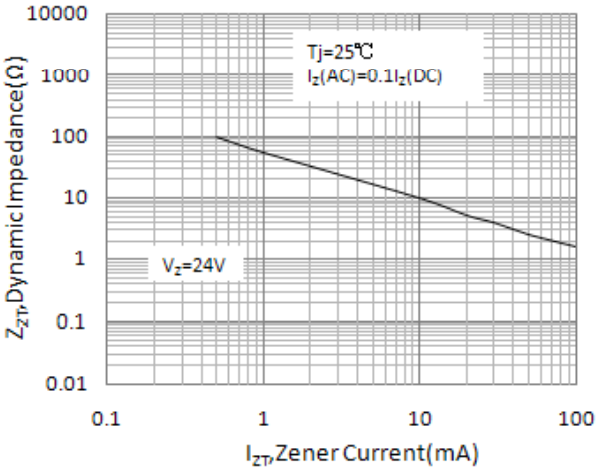


Figure 4. Typical Zener Impedance

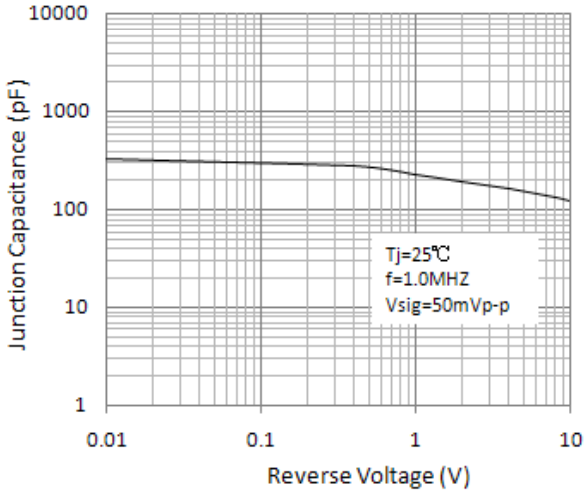
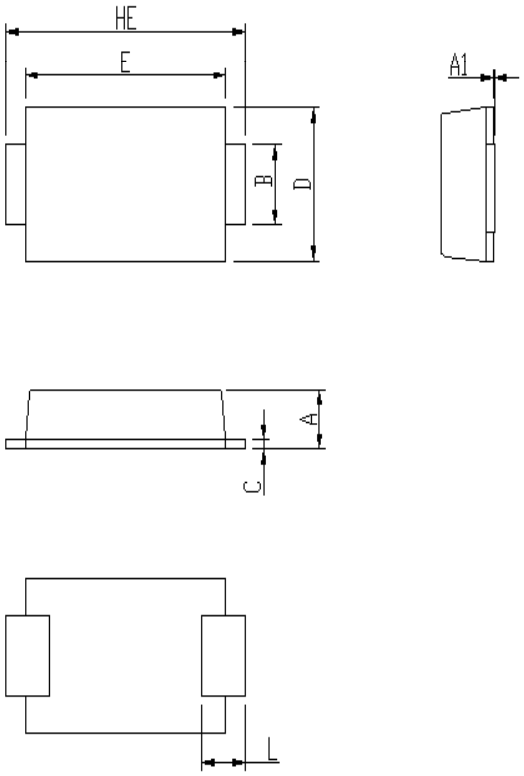


Figure 5. Typical Junction Capacitance

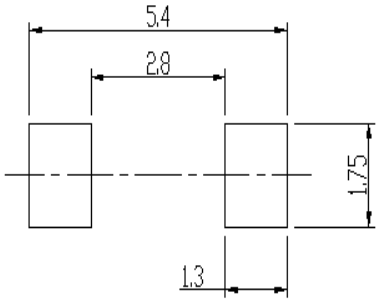
Package Outline Dimensions

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