F1N5923 thru F1N5956

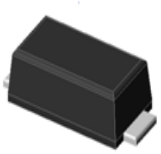
Surface Mount Zener Diodes

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

Features

- 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

RoHS COMPLIANT



eSGA
(SOD-123FL)

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	90	℃/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175	℃

Note:1),The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 5×5mm copper pads,2 OZ,FR4 PCB

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
F1N5923	7.79	8.61	45.7	3.5	0.5	400	5	6.5	182
F1N5924	8.65	9.56	41.2	4	0.5	500	5	7	164
F1N5925	9.5	10.5	37.5	4.5	0.25	500	5	8	150
F1N5926	10.45	11.55	34.1	5.5	0.25	550	1	8.4	136
F1N5927	11.4	12.6	31.2	6.5	0.25	550	1	9.1	125
F1N5928	12.35	13.65	28.8	7	0.25	550	1	9.9	115
F1N5929	14.25	15.75	25	9	0.25	600	1	11.4	100

F1N5923 thru F1N5956

Surface Mount Zener Diodes

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

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
F1N5930	15.2	16.8	23.4	10	0.25	600	1	12.2	93
F1N5931	17.1	18.9	20.8	12	0.25	650	1	13.7	83
F1N5932	19	21	18.7	14	0.25	650	1	15.2	75
F1N5933	20.9	23.1	17	17.5	0.25	650	1	16.7	68
F1N5934	22.8	25.2	15.6	19	0.25	700	1	18.2	62
F1N5935	25.65	28.35	13.9	23	0.25	700	1	20.6	55
F1N5936	28.5	31.5	12.5	28	0.25	750	1	22.8	50
F1N5937	31.35	34.65	11.4	33	0.25	800	1	25.1	45
F1N5938	34.2	37.8	10.4	38	0.25	850	1	27.4	41
F1N5939	37.05	40.95	9.6	45	0.25	900	1	29.7	38
F1N5940	40.85	45.15	8.7	53	0.25	950	1	32.7	34
F1N5941	44.65	49.35	8	67	0.25	1000	1	35.8	31
F1N5942	48.45	53.55	7.3	70	0.25	1100	1	38.8	29
F1N5943	53.2	58.8	6.7	86	0.25	1300	1	42.6	26
F1N5944	58.9	65.1	6	100	0.25	1500	1	47.1	24
F1N5945	64.6	71.4	5.5	120	0.25	1700	1	51.7	22
F1N5946	71.25	78.8	5	140	0.25	2000	1	56	20
F1N5947	77.9	86.1	4.6	160	0.25	2500	1	62.2	18
F1N5948	86.45	95.6	4.1	200	0.25	3000	1	69.2	16
F1N5949	95	105	3.7	250	0.25	3100	1	76	15
F1N5950	104.5	115.5	3.4	300	0.25	4000	1	83.6	13
F1N5951	114	126	3.1	380	0.25	4500	1	91.2	12
F1N5952	123.5	136.5	2.9	450	0.25	5000	1	98.8	11
F1N5953	142.5	157.5	2.5	600	0.25	6000	1	114	10
F1N5954	152	168	2.3	700	0.25	6500	1	121.6	9
F1N5955	171	189	2.1	900	0.25	7000	1	136.8	8
F1N5956	190	210	1.9	1200	0.25	8000	1	152	7

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

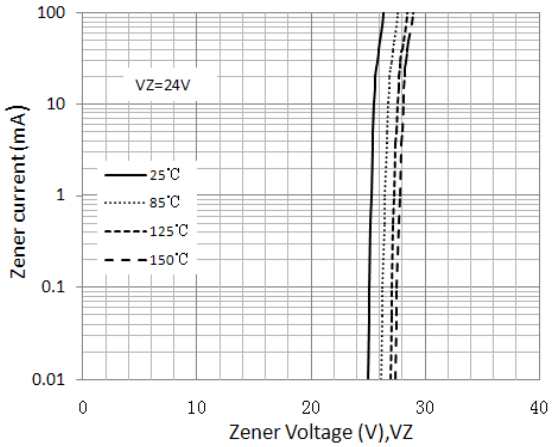


Figure 1. Typical Zener Voltage

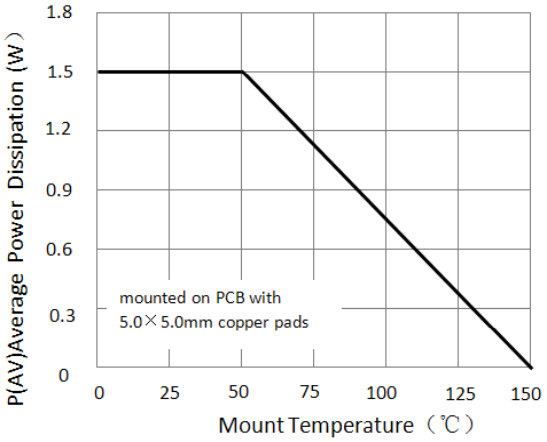


Figure 2. Steady State POWER Derating

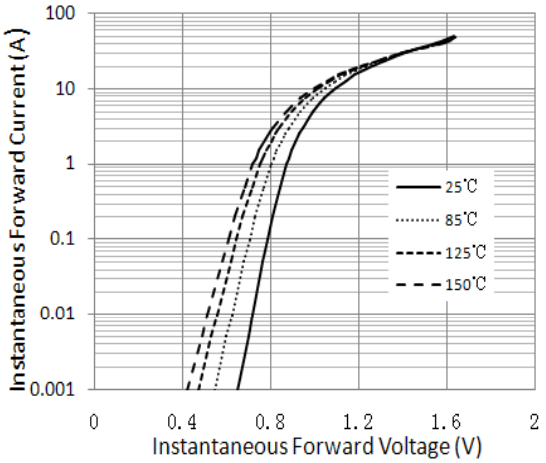


Figure 3. Typical Instantaneous Forward Characteristics

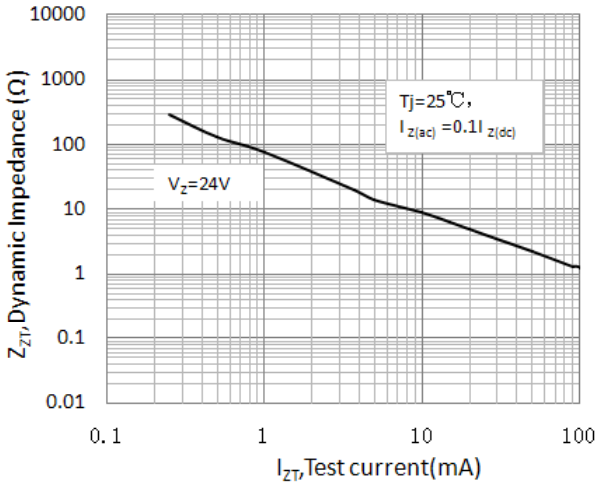


Figure 4. Typical Zener Impedance

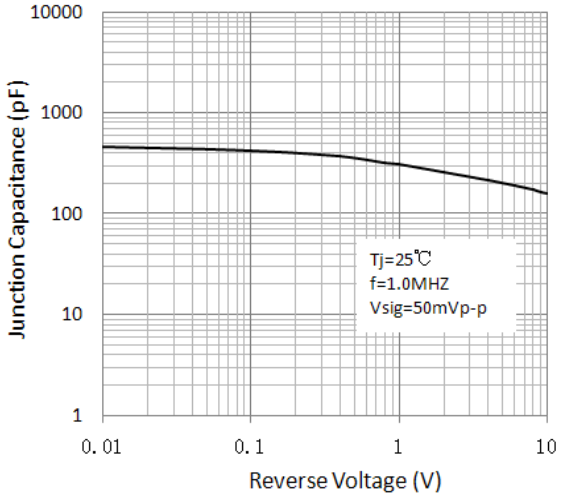
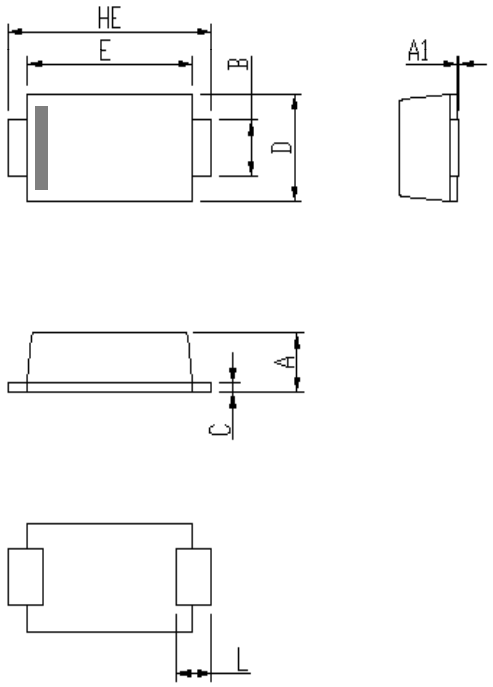


Figure 5. Typical Junction Capacitance

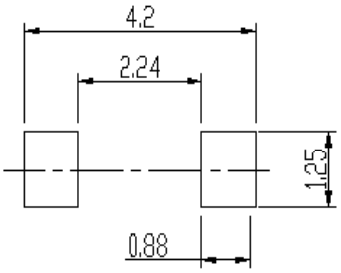
Package Outline Dimensions

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	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint

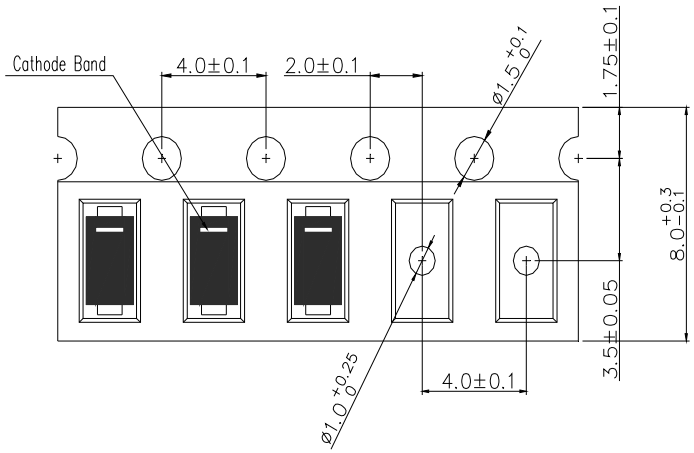


Packing Information

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification



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