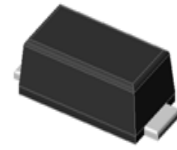


Features

- Total 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



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=75°C	Ptot	1	W
Maximum instantaneous forward voltage at 200mA	V _F	1.2	V
Thermal resistance junction to ambient air	Rthja	100	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Note:1),The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 5x5mm 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
	V _Z /V		I _{ZT}	Z _{ZT}	I _{ZK}	Z _{ZK}	I _R (Max)	V _R	I _{ZM}
	V _Z (MIN)	V _Z (MAX)	m A	Ω	m A	Ω	μA _{dc}	V	m A
F1N4738	7.79	8.61	31	4.5	0.5	700	10	6.5	110
F1N4739	8.65	9.56	28	5	0.5	700	10	7	100
F1N4740	9.5	10.5	25	7	0.25	700	10	8	91
F1N4741	10.45	11.55	23	8	0.25	700	5	8.4	83
F1N4742	11.4	12.6	21	9	0.25	700	5	9.1	76
F1N4743	12.35	13.65	19	10	0.25	700	5	9.9	69
F1N4744	14.25	15.75	17	14	0.25	700	5	11.4	61



F1N4738 thru FZ1200

Surface Mount Zener Diodes

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

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
F1N4745	15.2	16.8	15.5	16	0.25	700	5	12.2	57
F1N4746	17.1	18.9	14	20	0.25	750	5	13.7	50
F1N4747	19	21	12.5	22	0.25	750	5	15.2	45
F1N4748	20.9	23.1	11.5	23	0.25	750	5	16.7	41
F1N4749	22.8	25.2	10.5	25	0.25	750	5	18.2	38
F1N4750	25.65	28.35	9.5	35	0.25	750	5	20.6	34
F1N4751	28.5	31.5	8.5	40	0.25	1000	5	22.8	30
F1N4752	31.35	34.65	7.5	45	0.25	1000	5	25.1	27
F1N4753	34.2	37.8	7	50	0.25	1000	5	27.4	25
F1N4754	37.05	40.95	6.5	60	0.25	1000	5	29.7	23
F1N4755	40.85	45.15	6	70	0.25	1500	5	32.7	22
F1N4756	44.65	49.35	5.5	80	0.25	1500	5	35.8	19
F1N4757	48.45	53.55	5	95	0.25	1500	5	38.8	18
F1N4758	53.2	58.8	4.5	110	0.25	2000	5	42.6	16
F1N4759	58.9	65.1	4	125	0.25	2000	5	47.1	14
F1N4760	64.6	71.4	3.7	150	0.25	2000	5	51.7	13
F1N4761	71.25	78.8	3.3	175	0.25	2000	5	56	12
F1N4762	77.9	86.1	3	200	0.25	3000	5	62.2	11
F1N4763	86.45	95.6	2.8	250	0.25	3000	5	69.2	10
F1N4764	95	105	2.5	350	0.25	3000	5	76	9
FZ1110	104.5	115.5	2.3	450	0.25	4000	5	83.6	8.6
FZ1120	114	126	2	550	0.25	4500	5	91.2	7.8
FZ1130	123.5	136.5	1.9	700	0.25	5000	5	98.8	7
FZ1150	142.5	157.5	1.7	1000	0.25	6000	5	114	6.4
FZ1160	152	168	1.6	1100	0.25	6500	5	121.6	5.8
FZ1180	171	189	1.4	1200	0.25	7000	5	136.8	5.2
FZ1200	190	210	1.2	1900	0.25	9990	5	152	4.7

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

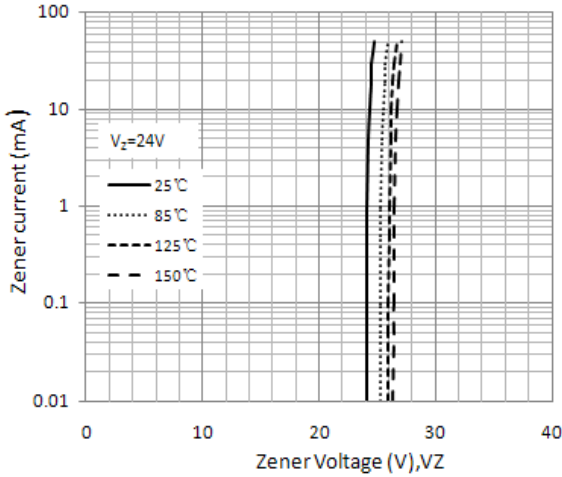


Figure 1. Typical Zener Voltage

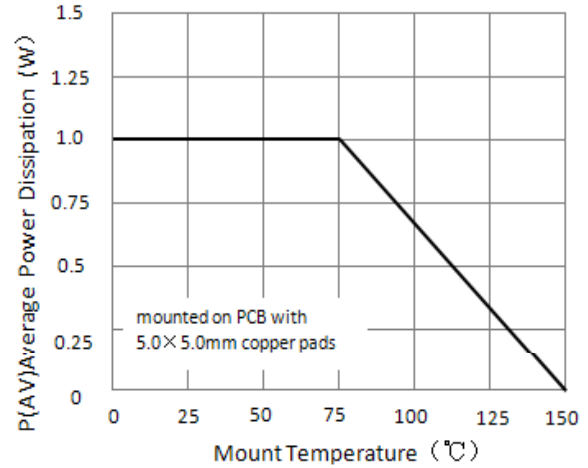


Figure 2. Steady State POWER Derating

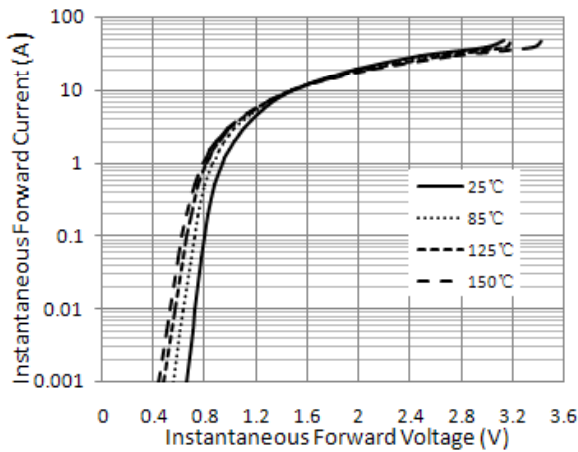


Figure 3. Typical Instantaneous Forward Characteristics

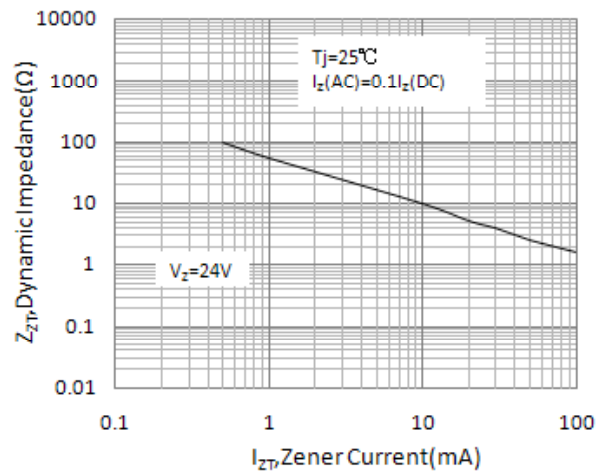


Figure 4. Typical Zener Impedance

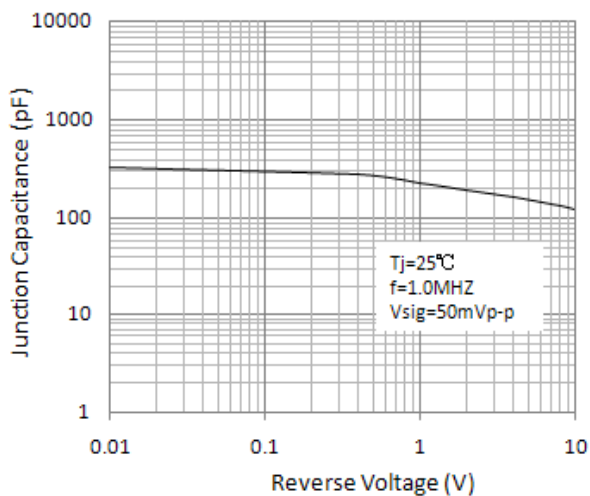


Figure 5. Typical Junction Capacitance



F1N4738 thru FZ1200

Surface Mount Zener Diodes

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

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