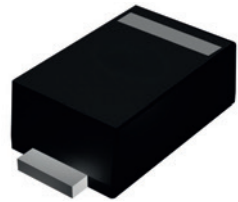


GSF1N4738 thru GSFZ1200

Surface Mount Zener Diodes
Vz Range: 8.2V to 200V Power Dissipation: 1W

Features

- Total power dissipation: max 1.0W
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260°C, 10s
- Low profile, typical thickness 1.0mm
- For use in stabilizing and clipping circuits with high power rating
- Zener voltage tolerance is $\pm 5\%$



SOD-123FL

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation at T _A =75°C	P _{tot}	1	W
Maximum Instantaneous Forward Voltage at 200mA	V _F	1.2	V
Thermal Resistance Junction to Ambient ¹	R _{thja}	100	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

Note:

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

GSF1N4738 thru GSFZ1200

Surface Mount Zener Diodes

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

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

Part Number	Marking Code	Zener Voltage			Test Current	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Zener Current
		V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}	I _{ZK}	Z _{ZK} @ I _{ZK}	I _R @ V _R	V _R	I _{ZM}
		Min (V)	Nom (V)	Max (V)	mA	Ω	mA	Ω	μA	V	mA
GSF1N4738	4738	7.79	8.2	8.61	31	4.5	0.5	700	10	6.5	110
GSF1N4739	4739	8.65	9.1	9.56	28	5	0.5	700	10	7	100
GSF1N4740	4740	9.5	10	10.5	25	7	0.25	700	10	8	91
GSF1N4741	4741	10.45	11	11.55	23	8	0.25	700	5	8.4	83
GSF1N4742	4742	11.4	12	12.6	21	9	0.25	700	5	9.1	76
GSF1N4743	4743	12.35	13	13.65	19	10	0.25	700	5	9.9	69
GSF1N4744	4744	14.25	15	15.75	17	14	0.25	700	5	11.4	61
GSF1N4745	4745	15.2	16	16.8	15.5	16	0.25	700	5	12.2	57
GSF1N4746	4746	17.1	18	18.9	14	20	0.25	750	5	13.7	50
GSF1N4747	4747	19	20	21	12.5	22	0.25	750	5	15.2	45
GSF1N4748	4748	20.9	22	23.1	11.5	23	0.25	750	5	16.7	41
GSF1N4749	4749	22.8	24	25.2	10.5	25	0.25	750	5	18.2	38
GSF1N4750	4750	25.65	27	28.35	9.5	35	0.25	750	5	20.6	34
GSF1N4751	4751	28.5	30	31.5	8.5	40	0.25	1000	5	22.8	30
GSF1N4752	4752	31.35	33	34.65	7.5	45	0.25	1000	5	25.1	27
GSF1N4753	4753	34.2	36	37.8	7	50	0.25	1000	5	27.4	25
GSF1N4754	4754	37.05	39	40.95	6.5	60	0.25	1000	5	29.7	23
GSF1N4755	4755	40.85	43	45.15	6	70	0.25	1500	5	32.7	22
GSF1N4756	4756	44.65	47	49.35	5.5	80	0.25	1500	5	35.8	19
GSF1N4757	4757	48.45	51	53.55	5	95	0.25	1500	5	38.8	18
GSF1N4758	4758	53.2	56	58.8	4.5	110	0.25	2000	5	42.6	16
GSF1N4759	4759	58.9	62	65.1	4	125	0.25	2000	5	47.1	14
GSF1N4760	4760	64.6	68	71.4	3.7	150	0.25	2000	5	51.7	13
GSF1N4761	4761	71.25	75	78.8	3.3	175	0.25	2000	5	56	12
GSF1N4762	4762	77.9	82	86.1	3	200	0.25	3000	5	62.2	11
GSF1N4763	4763	86.45	91	95.6	2.8	250	0.25	3000	5	69.2	10
GSF1N4764	4764	95	100	105	2.5	350	0.25	3000	5	76	9
GSFZ1110	1110	104.5	110	115.5	2.3	450	0.25	4000	5	83.6	8.6
GSFZ1120	1120	114	120	126	2	550	0.25	4500	5	91.2	7.8
GSFZ1130	1130	123.5	130	136.5	1.9	700	0.25	5000	5	98.8	7
GSFZ1150	1150	142.5	150	157.5	1.7	1000	0.25	6000	5	114	6.4
GSFZ1160	1160	152	160	168	1.6	1100	0.25	6500	5	121.6	5.8
GSFZ1180	1180	171	180	189	1.4	1200	0.25	7000	5	136.8	5.2
GSFZ1200	1200	190	200	210	1.2	1900	0.25	9990	5	152	4.7

Ratings and Characteristics Curves (T_A=25°C unless otherwise noted)

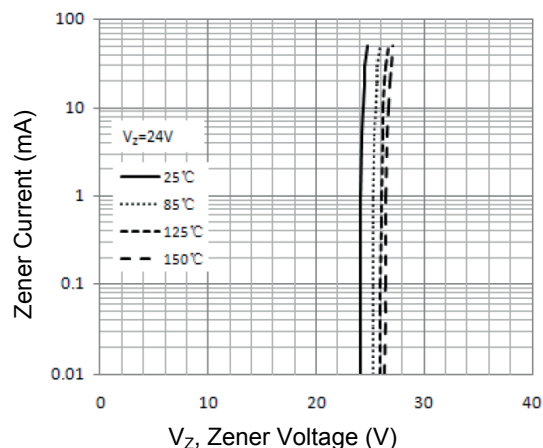


Figure 1. Typical Zener Voltage

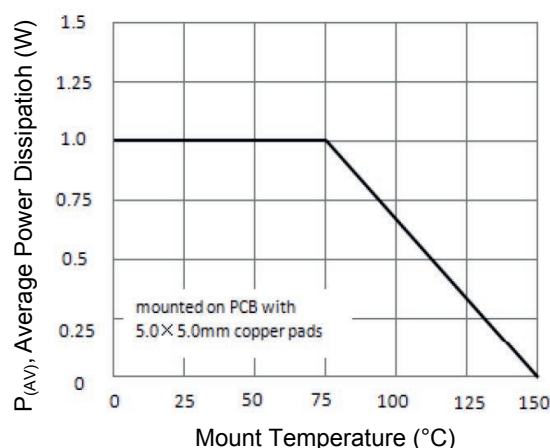


Figure 2. Steady State Power Derating

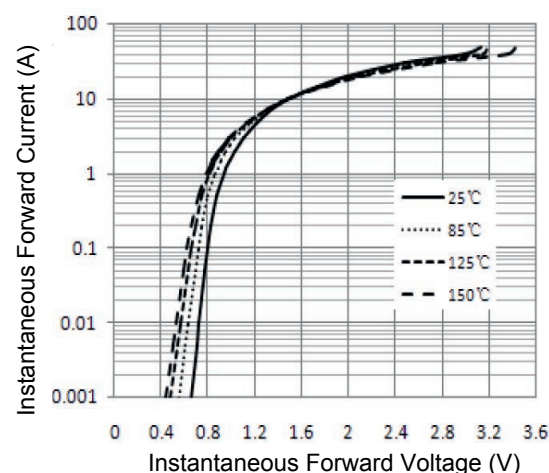


Figure 3. Typical Instantaneous Forward Characteristics

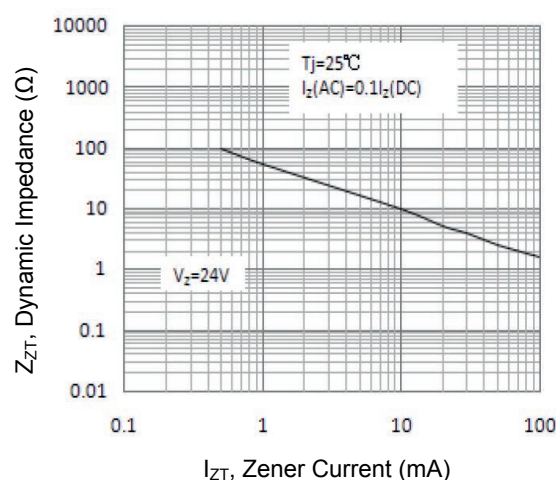


Figure 4. Typical Zener Impedance

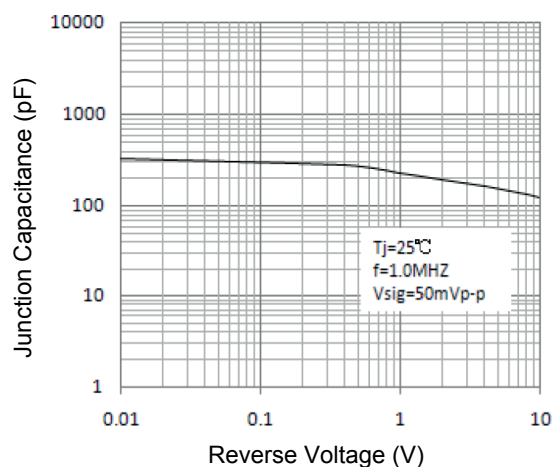
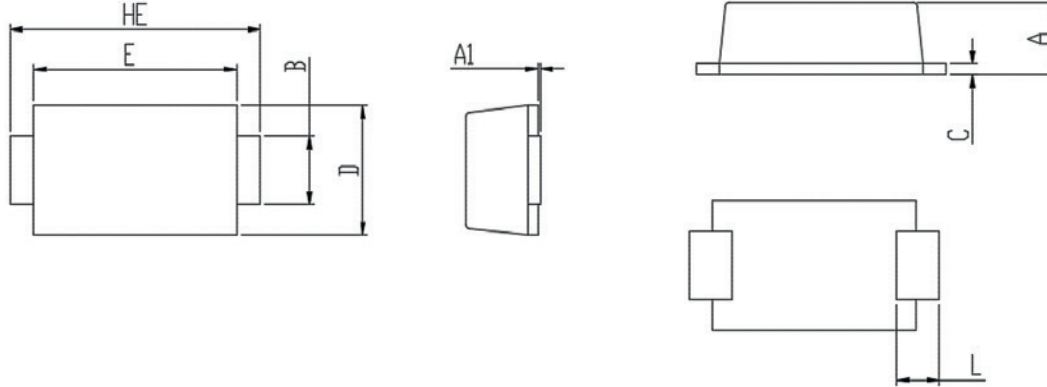


Figure 5. Typical Junction Capacitance

GSF1N4738 thru GSFZ1200

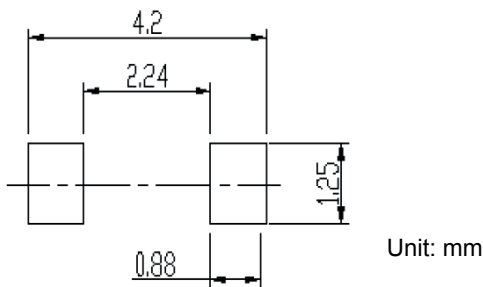
Surface Mount Zener Diodes
Vz Range: 8.2V to 200V Power Dissipation: 1W

Package Outline Dimensions (SOD-123FL)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.080	0.035	0.043
A1	0.000	0.100	0.000	0.004
B	0.850	1.050	0.033	0.041
C	0.100	0.250	0.004	0.010
D	1.700	2.000	0.067	0.079
E	2.900	3.100	0.114	0.122
L	0.430	0.830	0.017	0.033
HE	3.500	3.900	0.138	0.154

Recommended Pad Layout



Order Information

Device	Package	Carrier	Quantity
GSF1N47xx	SOD-123FL	Tape & Reel	3,000 Pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com