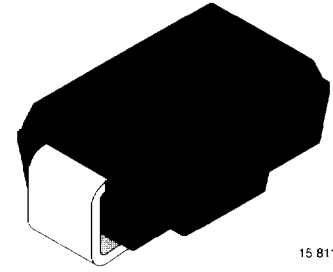
Silicon Z–Diodes

Features

- Glass passivated junction
- High reliability
- Voltage range 3.3 V to 100 V
- Fits onto 5 mm SMD footpads
- Wave and reflow solderable



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Applications

Voltage stabilization

Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	R_{thJA}<100K/W, T_{amb}=25°C		P_V	1.25	W
Non repetitive peak surge power dissipation	t_p=100µs sq.pulse, T_j=25°C prior to surge		P_{ZSM}	50	W
Junction temperature			T_j	150	°C
Storage temperature range			T_{stg}	–65...+150	°C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead		R_{thJL}	35	K/W
Junction ambient	mounted on epoxy–glass hard tissue, Fig. 1a	R_{thJA}	150	K/W
	mounted on epoxy–glass hard tissue, Fig. 1b	R_{thJA}	125	K/W
	mounted on Al–oxid–ceramic (Al_2O_3), Fig. 1b	R_{thJA}	100	K/W

Electrical Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=0.2A		V_F			1.2	V

Type	V_{Znom}	I_{ZT} 1)	for r_{ziT}	r_{zik}	at I_{ZK}	I_R	at V_R
	V	mA	Ω	Ω	mA	µA	V
BZG4728A	3.3	76	< 10	<400	1.0	< 100	1
BZG4729A	3.6	69	< 10	< 400	1.0	< 100	1
BZG4730A	3.9	64	< 9	< 400	1.0	< 50	1
BZG473 IA	4.3	58	< 9	< 400	1.0	< 10	1
BZG4732A	4.7	53	< 8	< 500	1.0	< 10	1
BZG4733A	5.1	49	< 7	< 550	1.0	< 10	1
BZG4734A	5.6	45	< 5	< 600	1.0	< 10	2
BZG4735A	6.2	41	< 2	< 700	1.0	< 10	3
BZG4736A	6.8	37	< 3.5	< 700	1.0	< 10	4
BZG4737A	7.5	34	< 4.0	< 700	0.5	< 10	5
BZG4738A	8.2	31	< 4.5	< 700	0.5	< 10	6
BZG4739A	9.1	28	< 5.0	< 700	0.5	< 10	7
BZG4740A	10	25	< 7	< 700	0.25	< 10	7.6
BZG4741A	11	23	< 8	< 700	0.25	< 5	8.4
BZG4742A	12	21	< 9	< 700	0.25	< 5	9.1
BZG4743A	13	19	< 10	< 700	0.25	< 5	9.9
BZG4744A	15	17	< 14	< 700	0.25	< 5	11.4
BZG4745A	16	15.5	< 16	< 700	0.25	< 5	12.2
BZG4746A	18	14	< 20	< 750	0.25	< 5	13.7
BZG4747A	20	12.5	< 22	< 750	0.25	< 5	15.2
BZG4748A	22	11.5	< 23	< 750	0.25	< 5	16.7
BZG4749A	24	10.5	< 25	< 750	0.25	< 5	18.2
BZG4750A	27	9.5	< 35	< 750	0.25	< 5	20.6
BZG4751A	30	8.5	< 40	< 1000	0.25	< 5	22.8
BZG4752A	33	7.5	< 45	< 1000	0.25	< 5	25.1
BZG4753A	36	7.0	< 50	< 1000	0.25	< 5	27.4
BZG4754A	39	6.5	< 60	< 1000	0.25	< 5	29.7
BZG4755A	43	6.0	< 70	< 1500	0.25	< 5	32.7
BZG4756A	47	5.5	< 80	< 1500	0.25	< 5	35.8
BZG4757A	51	5.0	< 95	< 1500	0.25	< 5	38.8
BZG4758A	56	4.5	< 110	< 2000	0.25	< 5	42.6
BZG4759A	62	4.0	< 125	< 2000	0.25	< 5	47.1
BZG4760A	68	3.7	< 150	< 2000	0.25	< 5	51.7
BZG4761A	75	3.3	< 175	< 2000	0.25	< 5	56.0
BZG4762A	82	3.0	< 200	< 3000	0.25	< 5	62.2
BZG4763A	91	2.8	< 250	< 3000	0.25	< 5	69.2
BZG4764A	100	2.5	< 350	< 3000	0.25	< 5	76

1) Based on dc–measurement at thermal equilibrium while maintaining the lead temperature (T_L) at 30°C ± 1°C.

Characteristics (T_j = 25°C unless otherwise specified)

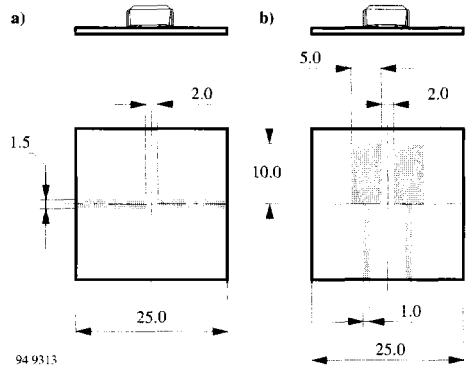


Figure 1. Boards for R_{thJA} definition (copper overlay 35µ)

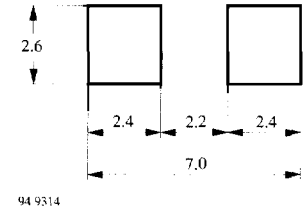
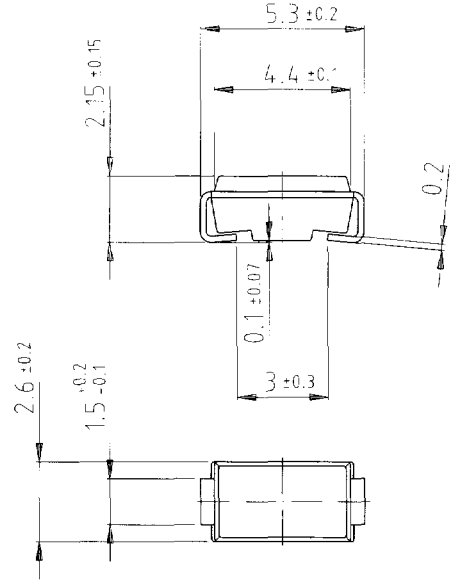
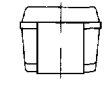


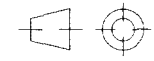
Figure 2. Recommended foot pads (in mm)

Dimensions in mm





Plastic case JEDEC DO 214
similar to SMA
Cathode indicated by a band



technical drawings according to DIN specifications

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