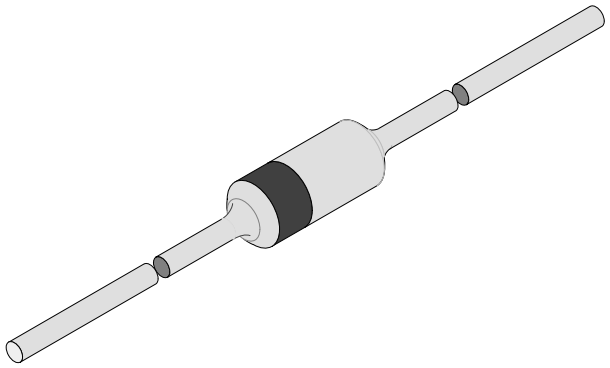
Silicon Z–Diodes

Features

- Very sharp reverse characteristic
- Very high stability
- Low reverse current level
- V_Z–tolerance ± 5%



94 9367

Applications

Voltage stabilization

Absolute Maximum Ratings

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	$T_L \leqq 75$˚C		P_V	500	mW
Z–current			I_Z	P_V/V_Z	mA
Junction temperature			T_j	200	˚C
Storage temperature range			T_{stg}	–65...+200	˚C

Maximum Thermal Resistance

T_j = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	l=9.5mm (3/8”), T_L=constant	R_{thJA}	300	K/W

Characteristics

T_j = 25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=200mA		V_F			1.1	V

Type	V_{Znorm} [1]	I_{ZT} for r_{zjT}		r_{zjk} at I_{ZK}		I_R at V_R		TK_{VZ}
	V	mA	Ω	Ω	mA	µA	V	%/K
1N5221B	2.4	20	< 30	< 1200	0.25	< 100	1.0	< –0.085
1N5222B	2.5	20	< 30	< 1250	0.25	< 100	1.0	< –0.085
1N5223B	2.7	20	< 30	< 1300	0.25	< 75	1.0	< –0.080
1N5224B	2.8	20	< 30	< 1400	0.25	< 75	1.0	< –0.080
1N5225B	3.0	20	< 29	< 1600	0.25	< 50	1.0	< –0.075
1N5226B	3.3	20	< 28	< 1600	0.25	< 25	1.0	< –0.070
1N5227B	3.6	20	< 24	< 1700	0.25	< 15	1.0	< –0.065
1N5228B	3.9	20	< 23	< 1900	0.25	< 10	1.0	< –0.060
1N5229B	4.3	20	< 22	< 2000	0.25	< 5	1.0	< +0.055
1N5230B	4.7	20	< 19	< 1900	0.25	< 5	2.0	< +0.030
1N5231B	5.1	20	< 17	< 1600	0.25	< 5	2.0	< +0.030
1N5232B	5.6	20	< 11	< 1600	0.25	< 5	3.0	< +0.038
1N5233B	6.0	20	< 7	< 1600	0.25	< 5	3.5	< +0.038
1N5234B	6.2	20	< 7	< 1000	0.25	< 5	4.0	< –0.045
1N5235B	6.8	20	< 5	< 750	0.25	< 3	5.0	< +0.050
1N5236A	7.5	20	< 6	< 500	0.25	< 3	6.0	< +0.058
1N5237B	8.2	20	< 8	< 500	0.25	< 3	6.5	< +0.062
1N5238B	8.7	20	< 8	< 600	0.25	< 3	6.5	< +0.065
1B5239B	9.1	20	< 10	< 600	0.25	< 3	7.0	< +0.068
1N5240B	10	20	< 17	< 600	0.25	< 3	8.0	< +0.075
1N5241B	11	20	< 22	< 600	0.25	< 2	8.4	< +0.076
1N5242B	12	20	< 30	< 600	0.25	< 1	9.1	< +0.077
1N5243B	13	9.5	< 13	< 600	0.25	< 0.5	9.9	< +0.079
1N5244B	14	9.0	< 15	< 600	0.25	< 0.1	10	< +0.082
1N5245B	15	8.5	< 16	< 600	0.25	< 0.1	11	< +0.082
1N5246B	16	7.8	< 17	< 600	0.25	< 0.1	12	< +0.083
1N5247B	17	7.4	< 19	< 600	0.25	< 0.1	13	< +0.084
1N5248B	18	7.0	< 21	< 600	0.25	< 0.1	14	< +0.085
1N5249B	19	6.6	< 23	< 600	0.25	< 0.1	14	< +0.086
1N5250B	20	6.2	< 25	< 600	0.25	< 0.1	15	< +0.086
1N5251B	22	5.6	< 29	< 600	0.25	< 0.1	17	< +0.087
1N5252B	24	5.2	< 33	< 600	0.25	< 0.1	18	< +0.088
1N5253B	25	5.0	< 35	< 600	0.25	< 0.1	19	< +0.089
1N5254B	27	4.6	< 41	< 600	0.25	< 0.1	21	< +0.090

Type	V_{Znorm} [1]	I_{ZT} for	r_{zjT}	r_{zjk} at	I_{ZK}	I_R at	V_R	TK_{VZ}
	V	mA	Ω	Ω	mA	µA	V	%/K
1N5255B	28	4.5	< 44	< 600	0.25	< 0.1	21	< +0.091
1N5256B	30	4.2	< 49	< 600	0.25	< 0.1	23	< +0.091
1N5257B	33	3.8	< 58	< 700	0.25	< 0.1	25	< +0.092
1N5258B	36	3.4	< 70	< 700	0.25	< 0.1	27	< +0.093
1B5259B	39	3.2	< 80	< 800	0.25	< 0.1	30	< +0.094
1N5260B	43	3.0	< 93	< 900	0.25	< 0.1	33	< +0.095
1N5261B	47	2.7	< 105	< 1000	0.25	< 0.1	36	< +0.095
1N5262B	51	2.5	< 125	< 1100	0.25	< 0.1	39	< +0.096
1N5263B	56	2.2	< 150	< 1300	0.25	< 0.1	43	< +0.096
1B5264B	60	2.1	< 170	< 1400	0.25	< 0.1	46	< +0.097
1N5265B	62	2.0	< 185	< 1400	0.25	< 0.1	47	< +0.097
1N5266B	68	1.8	< 230	< 1600	0.25	< 0.1	52	< +0.097
1N5267B	75	1.7	< 270	< 1700	0.25	< 0.1	56	< +0.098

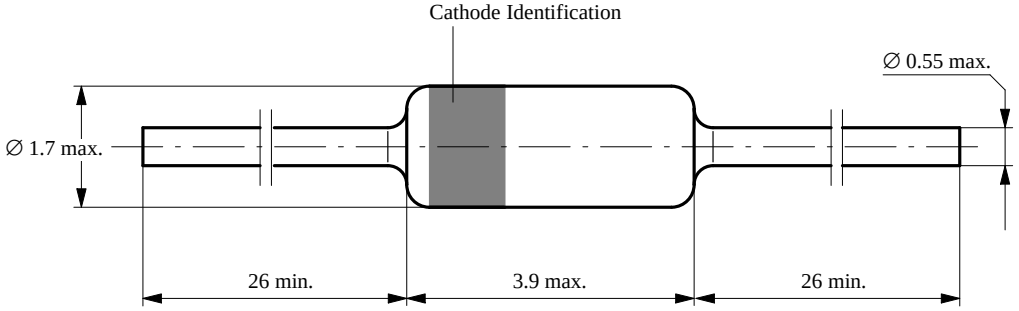
[1] Based on dc measurement at thermal equilibrium;
lead length = 9.5 mm ($^3/_8$ ");
thermal resistance of heat sink = 30 K/W.

Dimensions in mm

technical drawings
according to DIN
specifications

94 9366

Standard Glass Case
54 A 2 DIN 41880
JEDEC DO 35
Weight max. 0.3 g



OZONE DEPLETING SUBSTANCES POLICY STATEMENT

It is the policy of **TEMIC TELEFUNKEN microelectronic GmbH** to

1. Meet all present and future national and international statutory requirements and

2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

Of particular concern is the control or elimination of releases into the atmosphere of those substances which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) will soon severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

TEMIC TELEFUNKEN microelectronic GmbH semiconductor division has been able to use its policy of continuous improvements to eliminate the use of any ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively

2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA and

3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

TEMIC can certify that our semiconductors are not manufactured with and do not contain ozone depleting substances.

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