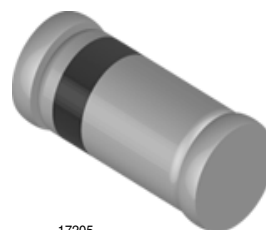


Small Signal Zener Diodes

Features

- Very sharp reverse characteristic
- Very high stability
- Electrical data identical with the devices 1N5221B...1N5267B
- Low reverse current level
- V_Z - tolerance $\pm 5\%$
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



17205

Applications

- Voltage stabilization

Mechanical Data

Case: MiniMELF Glass case SOD80

Weight: approx. 31 mg

Packaging codes/ options:

GS18 / 10 k per 13" reel (8 mm tape), 10 k/box

GS08 / 2.5 k per 7" reel (8 mm tape), 12.5 k/box

Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation	$R_{thJA} < 300\text{ K/W}$	P_{tot}	500	mW
Z-current		I_Z	P_{tot}/V_Z	mA
Junction temperature		T_j	175	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	- 65 to + 175	$^{\circ}\text{C}$

Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Junction to ambient air	on PC board 50 mm x 50 mm x 1.6 mm	R_{thJA}	500	K/W

Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Forward voltage	$I_F = 200\text{ mA}$	V_F			1.1	V

TZM5221B to TZM5267B

Vishay Semiconductors



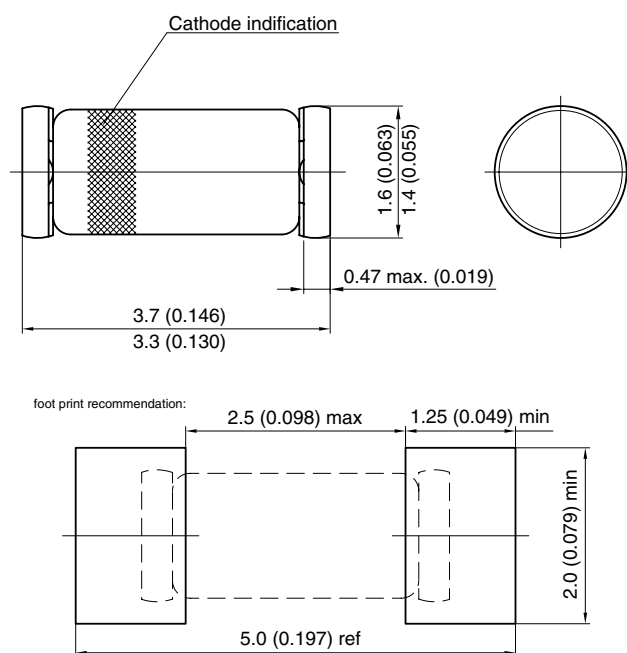
Electrical Characteristics

Partnumber	Zener Voltage Range ¹⁾	Dynamic Resistance		Test Current		Reverse Leakage Current		Temperature Coefficient
	V _Z	r _{zjT} at I _{ZT}	r _{zjK} at I _{ZK}	I _{ZT}	I _{ZK}	I _R at V _R		TK _{VZ}
	V	Ω	Ω	mA	mA	μA	V	%/K
	typ	typ	typ					
TZM5221B	2.4	< 30	< 1200	20	0.25	< 100	1	< - 0.085
TZM5222B	2.5	< 30	< 1250	20	0.25	< 100	1	< - 0.085
TZM5223B	2.7	< 30	< 1300	20	0.25	< 75	1	< - 0.080
TZM5224B	2.8	< 30	< 1400	20	0.25	< 75	1	< - 0.080
TZM5225B	3	< 29	< 1600	20	0.25	< 50	1	< - 0.075
TZM5226B	3.3	< 28	< 1600	20	0.25	< 25	1	< - 0.070
TZM5227B	3.6	< 24	< 1700	20	0.25	< 15	1	< - 0.065
TZM5228B	3.9	< 23	< 1900	20	0.25	< 10	1	< - 0.060
TZM5229B	4.3	< 22	< 2000	20	0.25	< 5	1	< ± 0.055
TZM5230B	4.7	< 19	< 1900	20	0.25	< 5	2	< ± 0.030
TZM5231B	5.1	< 17	< 1600	20	0.25	< 5	2	< ± 0.030
TZM5232B	5.6	< 11	< 1600	20	0.25	< 5	3	< + 0.038
TZM5233B	6	< 7	< 1600	20	0.25	< 5	3.5	< + 0.038
TZM5234B	6.2	< 7	< 1000	20	0.25	< 5	4	< + 0.045
TZM5235B	6.8	< 5	< 750	20	0.25	< 3	5	< + 0.050
TZM5236B	7.5	< 6	< 500	20	0.25	< 3	6	< + 0.058
TZM5237B	8.2	< 8	< 500	20	0.25	< 3	6.5	< + 0.062
TZM5238B	8.7	< 8	< 600	20	0.25	< 3	6.5	< + 0.065
TZM5239B	9.1	< 10	< 600	20	0.25	< 3	7	< + 0.068
TZM5240B	10	< 17	< 600	20	0.25	< 3	8	< + 0.075
TZM5241B	11	< 22	< 600	20	0.25	< 2	8.4	< + 0.076
TZM5242B	12	< 30	< 600	20	0.25	< 1	9.1	< + 0.077
TZM5243B	13	< 13	< 600	9.5	0.25	< 0.5	9.9	< + 0.079
TZM5244B	14	< 15	< 600	9	0.25	< 0.1	10	< + 0.082
TZM5245B	15	< 16	< 600	8.5	0.25	< 0.1	11	< + 0.082
TZM5246B	16	< 17	< 600	7.8	0.25	< 0.1	12	< + 0.083
TZM5247B	17	< 19	< 600	7.4	0.25	< 0.1	13	< + 0.084
TZM5248B	18	< 21	< 600	7	0.25	< 0.1	14	< + 0.085
TZM5249B	19	< 23	< 600	6.6	0.25	< 0.1	14	< + 0.086
TZM5250B	20	< 25	< 600	6.2	0.25	< 0.1	15	< + 0.086
TZM5251B	22	< 29	< 600	5.6	0.25	< 0.1	17	< + 0.087
TZM5252B	24	< 33	< 600	5.2	0.25	< 0.1	18	< + 0.088
TZM5253B	25	< 35	< 600	5	0.25	< 0.1	19	< + 0.089
TZM5254B	27	< 41	< 600	4.6	0.25	< 0.1	21	< + 0.090
TZM5255B	28	< 44	< 600	4.5	0.25	< 0.1	21	< + 0.091
TZM5256B	30	< 49	< 600	4.2	0.25	< 0.1	23	< + 0.091
TZM5257B	33	< 58	< 700	3.8	0.25	< 0.1	25	< + 0.092
TZM5258B	36	< 70	< 700	3.4	0.25	< 0.1	27	< + 0.093
TZM5259B	39	< 80	< 800	3.2	0.25	< 0.1	30	< + 0.094
TZM5260B	43	< 93	< 900	3	0.25	< 0.1	33	< + 0.095
TZM5261B	47	105	< 1000	2.7	0.25	< 0.1	36	< + 0.095
TZM5262B	51	125	< 1100	2.5	0.25	< 0.1	39	< + 0.096
TZM5263B	56	150	< 1300	2.2	0.25	< 0.1	43	< + 0.096
TZM5264B	60	170	< 1400	2.1	0.25	< 0.1	46	< + 0.097

Partnumber	Zener Voltage Range ¹⁾	Dynamic Resistance		Test Current		Reverse Leakage Current		Temperature Coefficient
	V _Z	r _{zjT} at I _{ZT}	r _{zjK} at I _{ZK}	I _{ZT}	I _{ZK}	I _R at V _R		TK _{VZ}
	V	Ω	Ω	mA	mA	μA	V	%/K
	typ	typ	typ					
TZM5265B	62	185	< 1400	2	0.25	< 0.1	47	< + 0.097
TZM5266B	68	230	< 1600	1.8	0.25	< 0.1	52	< + 0.097
TZM5267B	75	270	< 1700	1.7	0.25	< 0.1	56	< + 0.098

¹⁾ Based on dc-measurement at thermal equilibrium; case temperature maintained at $30\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$.

Package Dimensions in mm (Inches)



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96 12070



Ozone Depleting Substances Policy Statement

It is the policy of Vishay Semiconductor GmbH to

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

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

The Montreal Protocol (1987) and its London Amendments (1990) intend to 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.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of 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
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

We reserve the right to make changes to improve technical design
and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use Vishay Semiconductors products for any unintended or unauthorized application, the buyer shall indemnify Vishay Semiconductors against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

Vishay Semiconductor GmbH, P.O.B. 3535, D-74025 Heilbronn, Germany



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