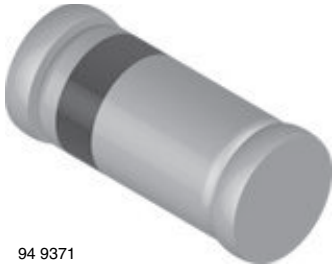
Small Signal Zener Diodes

Features

- Very sharp reverse characteristic
- Very high stability
- Electrical data identical with the devices 1N5221B to 1N5267B
- Low reverse current level
- V_Z - tolerance ± 5 %
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC

RoHS COMPLIANT



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Applications

- Voltage stabilization

Mechanical Data

Case: MiniMELF SOD-80

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 °C, unless otherwise specified

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

Thermal Characteristics

T_{amb} = 25 °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 °C, unless otherwise specified

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

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

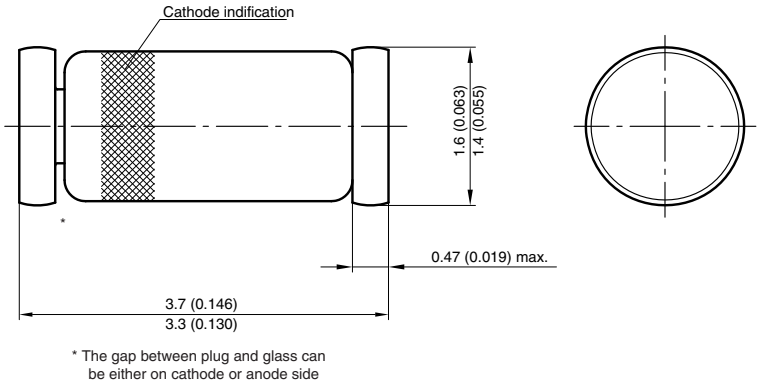
Electrical Characteristics

Part number	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

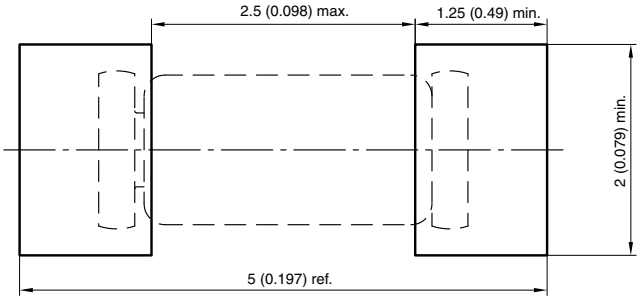
Part number	Zener voltage range [1]	Dynamic resistance		Test current		Reverse leakage current		Temperature coefficient
	V_Z	r_{zjT} at I_{ZT}	r_{zjK} at I_{ZK}	I_{ZT}	I_{ZK}	I_R at V_R		TK_{VZ}
	V	Ω	Ω	mA	mA	µA	V	%/K
	typ.	typ .	typ.					
TZM5265B	62	185	< 1400	2	0.25	< 0.1	47	< + 0.097
TZM5266B	68	230	< 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 °C ± 2 °C.

Package Dimensions in millimeters (inches): **MiniMELF SOD-80**



Foot print recommendation:



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