

Vishay Semiconductors

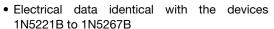
Small Signal Zener Diodes



PRIMARY CHARACTERISTICS					
PARAMETER VALUE UNIT					
V _Z range nom.	2.4 to 75	V			
Test current I _{ZT}	1.7 to 20	mA			
V _Z specification	Thermal equilibrium				
Int. construction	Single				

FEATURES

- Very sharp reverse characteristic
- Very high stability





COMPLIANT

- · Low reverse current level
- V_Z tolerance ± 5 %
- AEC-Q101 qualified
- Material categorization: For definitions of compliance please see <u>www.vishay.com/doc?99912</u>

APPLICATIONS

Voltage stabilization

ORDERING INFORMATION					
DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY		
TZM5521B to TZM5267B	TZM5521B to TZM5267B-series-GS18	10 000 (8 mm tape on 13" reel)	10 000/box		
TZM5521B to TZM5267B	TZM5521B to TZM5267B-series-GS08	2500 (8 mm tape on 7" reel)	12 500/box		

PACKAGE						
PACKAGE NAME WEIGHT		MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS		
MiniMELF SOD-80	31 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals		

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION SYMBOL VALUE		UNIT		
Power dissipation	$R_{thJA} = < 300 \text{ K/W}$	P _{tot}	500	mW	
Zener current		I _Z	P _{tot} /V _Z	mA	
Junction to ambient air	On PC board 50 mm x 50 mm x 1.6 mm	R _{thJA}	500	K/W	
Junction temperature		Tj	175	°C	
Storage temperature range		T _{stg}	- 65 to + 175	°C	
Forward voltage (max.)	I _F = 200 mA	V _F	1.1	V	



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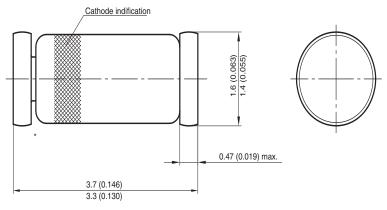
	ZENER VOLTAGE RANGE (1)	TEST CURRENT		REVERSE LEAKAGE CURRENT		DYNAMIC RESISTANCE		TEMPERATURE COEFFICIENT		
PART NUMBER	V _Z at I _{ZT1}	I _{ZT1}	I _{ZT2}			I _R at V _R		Z_Z at I_{ZT1} Z_{ZK} at I_{ZT2} f = 1 kHz		TK _{VZ}
	V	mA		μA V		Ω		%/ K		
	NOM.					TYP.	TYP.			
TZM5221B	2.4	20	0.25	< 100	1	< 30	< 1200	< - 0.085		
TZM5222B	2.5	20	0.25	< 100	1	< 30	< 1250	< - 0.085		
TZM5223B	2.7	20	0.25	< 75	1	< 30	< 1300	< - 0.080		
TZM5224B	2.8	20	0.25	< 75	1	< 30	< 1400	< - 0.080		
TZM5225B	3	20	0.25	< 50	1	< 29	< 1600	< - 0.075		
TZM5226B	3.3	20	0.25	< 25	1	< 28	< 1600	< - 0.070		
TZM5227B	3.6	20	0.25	< 15	1	< 24	< 1700	< - 0.065		
TZM5228B	3.9	20	0.25	< 10	1	< 23	< 1900	< - 0.060		
TZM5229B	4.3	20	0.25	< 5	1	< 22	< 2000	< ± 0.055		
TZM5230B	4.7	20	0.25	< 5	2	< 19	< 1900	< ± 0.030		
TZM5231B	5.1	20	0.25	< 5	2	< 17	< 1600	< ± 0.030		
TZM5232B	5.6	20	0.25	< 5	3	< 11	< 1600	< + 0.038		
TZM5233B	6	20	0.25	< 5	3.5	< 7	< 1600	< + 0.038		
TZM5234B	6.2	20	0.25	< 5	4	< 7	< 1000	< + 0.045		
TZM5235B	6.8	20	0.25	< 3	5	< 5	< 750	< + 0.050		
TZM5236B	7.5	20	0.25	< 3	6	< 6	< 500	< + 0.058		
TZM5237B	8.2	20	0.25	< 3	6.5	< 8	< 500	< + 0.062		
TZM5238B	8.7	20	0.25	< 3	6.5	< 8	< 600	< + 0.065		
TZM5239B	9.1	20	0.25	< 3	7	< 10	< 600	< + 0.068		
TZM5240B	10	20	0.25	< 3	8	< 17	< 600	< + 0.075		
TZM5241B	11	20	0.25	< 2	8.4	< 22	< 600	< + 0.076		
TZM5242B	12	20	0.25	< 1	9.1	< 30	< 600	< + 0.077		
TZM5243B	13	9.5	0.25	< 0.5	9.9	< 13	< 600	< + 0.079		
TZM5244B	14	9	0.25	< 0.1	10	< 15	< 600	< + 0.082		
TZM5245B	15	8.5	0.25	< 0.1	11	< 16	< 600	< + 0.082		
TZM5246B	16	7.8	0.25	< 0.1	12	< 17	< 600	< + 0.083		
TZM5247B	17	7.4	0.25	< 0.1	13	< 19	< 600	< + 0.084		
TZM5248B	18	7	0.25	< 0.1	14	< 21	< 600	< + 0.085		
TZM5249B	19	6.6	0.25	< 0.1	14	< 23	< 600	< + 0.086		
TZM5250B	20	6.2	0.25	< 0.1	15	< 25	< 600	< + 0.086		
TZM5251B	22	5.6	0.25	< 0.1	17	< 29	< 600	< + 0.087		
TZM5252B	24	5.2	0.25	< 0.1	18	< 33	< 600	< + 0.088		
TZM5253B	25	5	0.25	< 0.1	19	< 35	< 600	< + 0.089		
TZM5254B	27	4.6	0.25	< 0.1	21	< 41	< 600	< + 0.090		
TZM5255B	28	4.5	0.25	< 0.1	21	< 44	< 600	< + 0.091		
TZM5256B	30	4.2	0.25	< 0.1	23	< 49	< 600	< + 0.091		
TZM5257B	33	3.8	0.25	< 0.1	25	< 58	< 700	< + 0.092		
TZM5258B	36	3.4	0.25	< 0.1	27	< 70	< 700	< + 0.093		
TZM5259B	39	3.2	0.25	< 0.1	30	< 80	< 800	< + 0.094		
TZM5260B	43	3	0.25	< 0.1	33	< 93	< 900	< + 0.095		
TZM5261B	47	2.7	0.25	< 0.1	36	105	< 1000	< + 0.095		
TZM5262B	51	2.5	0.25	< 0.1	39	125	< 1100	< + 0.096		
TZM5263B	56	2.2	0.25	< 0.1	43	150	< 1300	< + 0.096		
TZM5264B	60	2.1	0.25	< 0.1	46	170	< 1400	< + 0.097		
TZM5265B	62	2	0.25	< 0.1	47	185	< 1400	< + 0.097		
TZM5266B	68	1.8	0.25	< 0.1	52	230	< 1600	< + 0.097		
TZM5267B	75	1.7	0.25	< 0.1	56	270	< 1700	< + 0.098		

Note

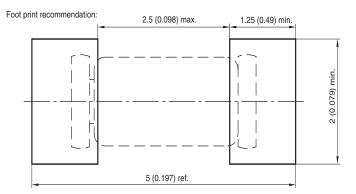
 $^{^{(1)}}$ Based on DC measurement at thermal equilibrium; case temperature maintained at 30 $^{\circ}$ C \pm 2 $^{\circ}$ C

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PACKAGE DIMENSIONS in millimeters (inches): MiniMELF SOD-80



* The gap between plug and glass can be either on cathode or anode side



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NTE5121A NTE5139A NTE5147A NTE5152A NTE5155A NTE5156A NTE5164A JANS1N4974US SMAJ4764A-TP RKZ5.1BKU#P6

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