Zener Diode

multicomp PRO





Features

- High reliability.
- · Very sharp reverse characteristic.
- · Low reverse current level.
- Vz-tolerance ±5%.

Application

Voltage stabilization.

Absolute Maximum Ratings T_J = 25°C

Parameter	Test Conditions	Symbol	Value	Unit
Power Dissipation	Tamb ≤ 75°C	Pv	500	mW
Z-Current	-	lz	Pv / Vz	mA
Junction Temperature	-	TJ	200	°C
Storage Temperature Range	-	Тѕтс	-65 to +200	

Maximum Thermal Resistance T_J = 25°C

ı	Parameter	Test Conditions	Symbol	Value	Unit
	Junction Ambient	I = 9.5mm (3/8") TL = constant	RтнJA	300	K/W

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

Electrical Characteristics T_J = 25°C

Parameter	Test Conditions	Symbol	Maximum	Unit
Forward Voltage	IF = 200 mA	VF	1.1	V

Specification Table

V _{Znom} 1)	Iz⊤ fo	r rziT	r _{ziK} at	Izĸ	lr at	V R	TKvz	Part Number	
V	mA	Ω	Ω	mA	μA	V	%/ K		
2.4	20	< 30	< 1200	0.25	< 100	1	< -0.085	1N5221B	
3.3	20	< 28	< 1600	0.25	< 25	1	< -0.07	1N5226B	
3.6	20	< 24	< 1700	0.25	< 15	1	< -0.065	1N5227B	
3.9	20	< 23	< 1900	0.25	< 10	1	< -0.06	1N5228B	
4.3	20	< 22	< 2000	0.25	< 5	1	< +0.055	1N5229B	
4.7	20	< 19	< 1900	0.25	< 5	2	< +0.03	1N5230B	
5.1	20	< 17	< 1600	0.25	< 5	2	< +0.03	1N5231B	
5.6	20	< 11	< 1600	0.25	< 5	3	< +0.038	1N5232B	

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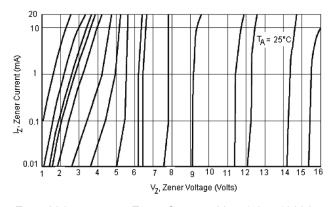
Zener Diode



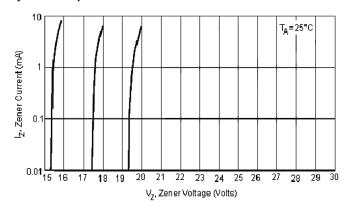
Vznom ¹⁾	Izт fo	r rziT	r _{ziK} at	Izĸ	Ir at	V R	TKvz	Part Number	
V	mA	Ω	Ω	mA	μΑ	V	%/K		
6	20	< 7	< 1600	0.25	< 5	3.5	< +0.038	1N5233B	
6.2	20	< 7	< 1000	0.25	< 5	4	< +0.045	1N5234B	
6.8	20	< 5	< 750	0.25	< 3	5	< +0.05	1N5235B	
7.5	20	< 6	< 500	0.25	< 3	6	< +0.058	1N5236B	
8.2	20	< 8	< 500	0.25	< 3	6.5	< +0.062	1N5237B	
8.7	20	< 8	< 600	0.25	< 3	6.5	< +0.065	1N5238B	
9.1	20	< 10	< 600	0.25	< 3	7	< +0.068	1N5239B	
10	20	< 17	< 600	0.25	< 3	8	< +0.075	1N5240B	
11	20	< 22	< 600	0.25	< 2	8.4	< +0.076	1N5241B	
12	20	< 30	< 600	0.25	< 1	9.1	< +0.077	1N5242B	
13	9.5	< 13	< 600	0.25	< 0.5	9.9	< +0.079	1N5243B	
14	9	< 15	< 600	0.25	< 0.1	10	< +0.082	1N5244B	
15	8.5	< 16	< 600	0.25	< 0.1	11	< +0.082	1N5245B	
16	7.8	< 17	< 600	0.25	< 0.1	12	< +0.083	1N5246B	
17	7.4	< 19	< 600	0.25	< 0.1	13	< +0.084	1N5247B	
18	7	< 21	< 600	0.25	< 0.1	14	< +0.085	1N5248B	
20	6.2	< 25	< 600	0.25	< 0.1	16	< +0.086	1N5250B	

¹⁾ Based on DC - measurement at thermal equilibrium while maintaining the lead temperature (TL) at 30°C, 9.5mm (0.38") from the diode body

Characteristics (T_J = 25°C unless otherwise specified)

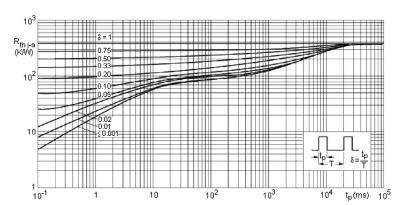


Zener Voltage versus Zener Current - Vz = 1 thru 16 Volts



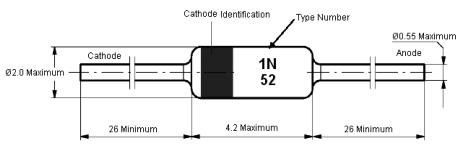
Zener Voltage versus Zener Current - Vz = 15 thru 30 Volts

Zener Diode



Thermal Resistance from Junction to Ambient as a Function of Pulse Duration

Dimensions



Standard Glass Case JEDEC DO-35 Dimensions : Millimetres

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