Zener Diode





Features:

- Low profile package.
- Excellent clamping capability.
- Glass passivity junction.
- V_z-tolerance ±5%.

Application:

Voltage stabilization.

Absolute Maximum Ratings T_i = 25°C

Parameter	Test Conditions	Symbol	Value	Unit	
Power dissipation	Power dissipation T _{amb} ≤ 75°C		5	W	
Z-current	-	I _z	P_v/V_z	mA	
Junction temperature	-	T _j	150	°C	
Storage temperature range	-	T _{stg}	-65 to +150	C	

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_i = 25°C

Parameter	Test Conditions	Symbol	Maximum	Unit
Forward voltage	I _F = 1A	V_{F}	1.2	V

Page <1>

Zener Diode



Specification Table

V _{Znom} 1)	I _{ZT}	for Z _{zT}	Z _{ZK at} I _{ZK} = 1 mA	I _R a	t V _R	I _R ²⁾	$\Delta V_Z^{3)}$	I _{ZM} ⁴⁾	Part Number
V	mA	Ω	Ω	μA	V	Α	V	mA	
5.1	240	1.5	400	1	1	14.4	0.39	930	1N5338B
5.6	220	1	400	1	2	13.4	0.25	865	1N5339B
6	200	1	300	1	3	12.7	0.19	790	1N5340B
6.2	200	1	200	1	3	12.4	0.1	765	1N5341B
6.8	175	1	200	10	5.2	11.5	0.15	700	1N5342B
7.5	175	1.5	200	10	5.7	10.7	0.15	630	1N5343B
8.2	150	1.5	200	10	6.2	10	0.2	580	1N5344B
9.1	150	2	150	7.5	6.9	9.2	0.22	520	1N5346B
10	125	2	125	5	7.6	8.6	0.22	475	1N5347B
11	125	2.5	125	5	8.4	8	0.25	430	1N5348B
12	100	2.5	125	2	9.1	7.5	0.25	395	1N5349B
13	100	2.5	100	1	9.9	7	0.25	365	1N5350B
14	100	2.5	75	1	10.6	6.7	0.25	340	1N5351B
15	75	2.5	75	1	11.5	6.3	0.25	315	1N5352B
16	75	2.5	75	1	12.2	6	0.3	295	1N5353B
17	70	2.5	75	0.5	12.9	5.8	0.35	280	1N5354B
18	65	2.5	75	0.5	13.7	5.5	0.4	265	1N5355B
22	50	3.5	75	0.5	16.7	4.7	0.45	216	1N5358B
24	50	3.5	100	0.5	18.2	4.4	0.55	198	1N5359B
27	50	5	120	0.5	20.6	4.1	0.6	176	1N5361B
30	40	8	140	0.5	22.8	3.7	0.6	158	1N5363B
33	40	10	150	0.5	25.1	3.5	0.6	144	1N5364B
36	30	11	160	0.5	27.4	3.3	0.65	132	1N5365B

¹⁾ Zener voltage (V_z): Based on DC-measurement at thermal equilibrium while maintaining the lead temperature (T_L) at 25°C, 9.5 mm (3/8") from the diode body.

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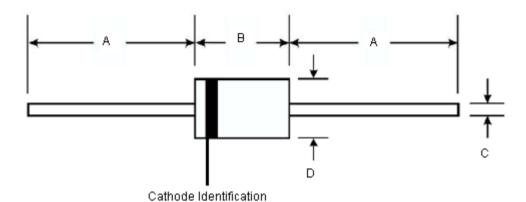
²⁾ Surge current (I_R) is specified as the maximum allowable peak, non-recurrent square-wave current with a plus width, PW, of 8.3 ms.

³⁾ Voltage regulation (ΔV_z): Test conditions for voltage are as below, V_z measurements are made at 10% and then at 50% of the I_z max value listed in the electrical characteristics table. The test current time duration for each V_z measurements is 40 ±10 ms ($T_A = 25^{\circ}\text{C} + 8, -2^{\circ}\text{C}$).

⁴⁾ Maximum regulator current (I_{ZM}): The maximum current shown is based on the maximum voltage of a 5% type unit; therefore, it applies only to the B-suffix device. The actual I_{ZM} for any device may not exceed the value of 5 watts divided by the actual V_z of the device. T_L = 75°C at 9.5 mm (3/8") from the diode body.

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Case : moulded plastic DO-15

Polarity: Cathode band

Dimensions							
Dimensions	Inc	hes	mm				
	Minimum	Maximum	Minimum	Maximum			
А	1	-	25.4	-			
В	0.23	0.3	5.8	7.6			
С	0.026	0.034	0.7	0.9			
D	0.104	0.14	2.6	3.6			

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