

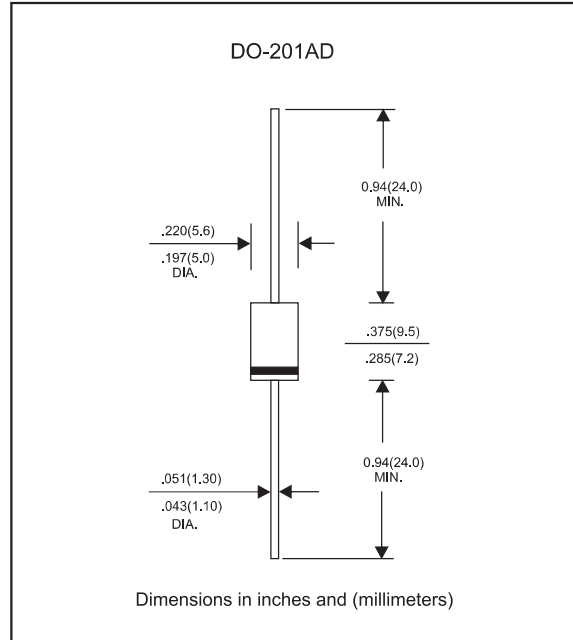
Features

- High reliability
- Very sharp reverse characteristic
- Wide zener reverse voltage range 3.3V to 200V.
- Low reverse current level
- Lead-free parts meet environmental standards of MIL-STD-19500 /228
- Suffix "-H" indicates Halogen-free part, ex. 1N5333B-H

Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, DO-201AD
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position : Any

Package outline



MAXIMUM RATINGS (at $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Power dissipation	at $T_L=75^\circ\text{C}$	P_D			5.0	W
Forward voltage	$I_F = 200 \text{ mA}$	V_F			1.20	V
Operating junction temperature		T_J	-55		+150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55		+150	$^\circ\text{C}$

These ratings are limiting values above which the serviceability of the diode may be impaired

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Part Number	Nominal Zener Voltage @I _T			I _{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	V _{Z AVE.} (V)	V _{Z MIN.} (V)	V _{Z MAX.} (V)		Z _{ZT MAX.} (Ω) @I _{ZT}	Z _{ZK MAX.} (Ω) @I _{ZK}	I _{ZK} (mA)	I _R (μA) @V _R	V _R (V)	
1N5333B	3.3	3.14	3.47	380.0	3.0	400	1.00	300	1.0	1437.0
1N5334B	3.6	3.42	3.78	350.0	2.5	500	1.00	150	1.0	1317.0
1N5335B	3.9	3.71	4.10	320.0	2.0	500	1.00	50	1.0	1216.0
1N5336B	4.3	4.09	4.52	290.0	2.0	500	1.00	10	1.0	1103.0
1N5337B	4.7	4.47	4.94	260.0	2.0	450	1.00	5	1.0	1009.0
1N5338B	5.1	4.85	5.36	240.0	1.5	400	1.00	1.0	1.0	930.0
1N5339B	5.6	5.32	5.88	220.0	1.0	400	1.00	1.0	2.0	846.0
1N5340B	6.0	5.70	6.30	200.0	1.0	300	1.00	1.0	3.0	790.0
1N5341B	6.2	5.89	6.51	200.0	1.0	200	1.00	1.0	3.0	765.0
1N5342B	6.8	6.46	7.14	175.0	1.0	200	1.00	10.0	5.2	700.0
1N5343B	7.5	7.13	7.88	175.0	1.5	200	1.00	10.0	5.7	630.0
1N5344B	8.2	7.79	8.61	150.0	1.5	200	1.00	10.0	6.2	580.0
1N5345B	8.7	8.27	9.14	150.0	2.0	200	1.00	10.0	6.6	545.0
1N5346B	9.1	8.65	9.56	150.0	2.0	150	1.00	7.5	6.9	520.0
1N5347B	10.0	9.50	10.50	125.0	2.0	125	1.00	5	7.6	475.0
1N5348B	11.0	10.45	11.55	125.0	2.5	125	1.00	5	8.4	430.0
1N5349B	12.0	11.40	12.60	100.0	2.5	125	1.00	2	9.1	395.0
1N5350B	13.0	12.35	13.65	100.0	2.5	100	1.00	1	9.9	365.0
1N5351B	14.0	13.30	14.70	100.0	2.5	75	1.00	1	10.6	340.0
1N5352B	15.0	14.25	15.75	75.0	2.5	75	1.00	1	11.5	315.0
1N5353B	16.0	15.20	16.80	75.0	2.5	75	1.00	1	12.2	295.0
1N5354B	17.0	16.15	17.85	70.0	2.5	75	1.00	0.5	12.9	280.0
1N5355B	18.0	17.10	18.90	65.0	2.5	75	1.00	0.5	13.7	265.0
1N5356B	19.0	18.05	19.95	65.0	3.0	75	1.00	0.5	14.4	250.0
1N5357B	20.0	19.00	21.00	65.0	3.0	75	1.00	0.5	15.2	237.0
1N5358B	22.0	20.90	23.10	50.0	3.5	75	1.00	0.5	16.7	216.0
1N5359B	24.0	22.80	25.20	50.0	3.5	100	1.00	0.5	18.2	198.0
1N5360B	25.0	23.75	26.25	50.0	4.0	110	1.00	0.5	19.0	190.0
1N5361B	27.0	25.65	28.35	50.0	5.0	120	1.00	0.5	20.6	176.0
1N5362B	28.0	26.60	29.40	50.0	6.0	130	1.00	0.5	21.2	170.0
1N5363B	30.0	28.50	31.50	40.0	8.0	140	1.00	0.5	22.8	158.0
1N5364B	33.0	31.35	34.65	40.0	10.0	150	1.00	0.5	25.1	144.0
1N5365B	36.0	34.20	37.80	30.0	11.0	160	1.00	0.5	27.4	132.0
1N5366B	39.0	37.05	40.95	30.0	14.0	170	1.00	0.5	29.7	122.0
1N5367B	43.0	40.85	45.15	30.0	20.0	190	1.00	0.5	32.7	110.0
1N5368B	47.0	44.65	49.35	25.0	25.0	210	1.00	0.5	35.8	100.0
1N5369B	51.0	48.45	53.55	25.0	27.0	230	1.00	0.5	38.8	93.0
1N5370B	56.0	53.20	58.80	20.0	35.0	280	1.00	0.5	42.6	86.0
1N5371B	60.0	57.00	63.00	20.0	40.0	350	1.00	0.5	42.5	79.0
1N5372B	62.0	58.90	65.10	20.0	42.0	400	1.00	0.5	47.1	76.0
1N5373B	68.0	64.60	71.40	20.0	44.0	500	1.00	0.5	51.7	70.0
1N5374B	75.0	71.25	78.75	20.0	45.0	620	1.00	0.5	56.0	63.0
1N5375B	82.0	77.90	86.10	15.0	65.0	720	1.00	0.5	62.2	58.0
1N5376B	87.0	82.65	91.35	15.0	75.0	760	1.00	0.5	66.0	54.5
1N5377B	91.0	86.45	95.55	15.0	75.0	760	1.00	0.5	69.2	52.5
1N5378B	100.0	95.00	105.00	12.0	90.0	800	1.00	0.5	76.0	47.5
1N5379B	110.0	104.50	115.50	12.0	125.0	1000	1.00	0.5	83.6	43.0
1N5380B	120.0	114.00	126.00	10.0	170.0	1150	1.00	0.5	91.2	39.5
1N5381B	130.0	123.50	136.50	10.0	190.0	1250	1.00	0.5	98.8	36.6
1N5382B	140.0	133.00	147.00	8.0	230.0	1500	1.00	0.5	106.0	34.0
1N5383B	150.0	142.50	157.50	8.0	330.0	1500	1.00	0.5	114.0	31.6
1N5384B	160.0	152.00	168.00	8.0	350.0	1650	1.00	0.5	122.0	29.4
1N5385B	170.0	161.50	178.50	8.0	380.0	1750	1.00	0.5	129.0	28.0
1N5386B	180.0	171.00	189.00	5.0	430.0	1750	1.00	0.5	137.0	26.4
1N5387B	190.0	180.50	199.50	5.0	450.0	1850	1.00	0.5	144.0	25.0
1N5388B	200.0	190.00	210.00	5.0	480.0	1850	1.00	0.5	152.0	23.6

Rating and characteristic curves

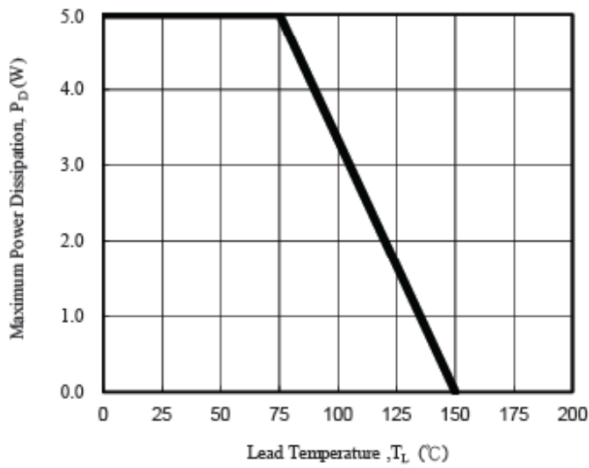


Fig. 1 - Power Temperature Derating Curve

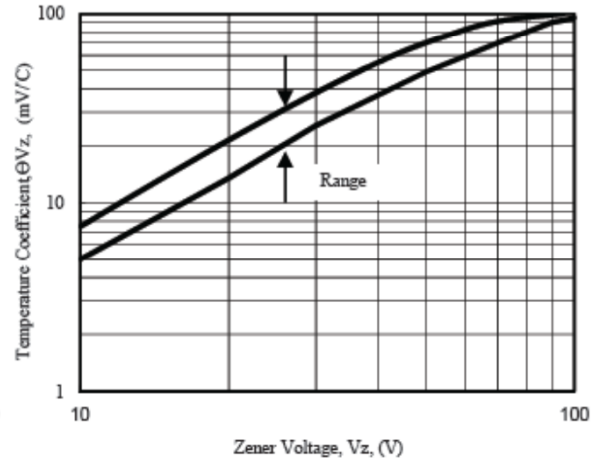


Fig. 2 - Temperature Coefficients v.s. Zener Voltage

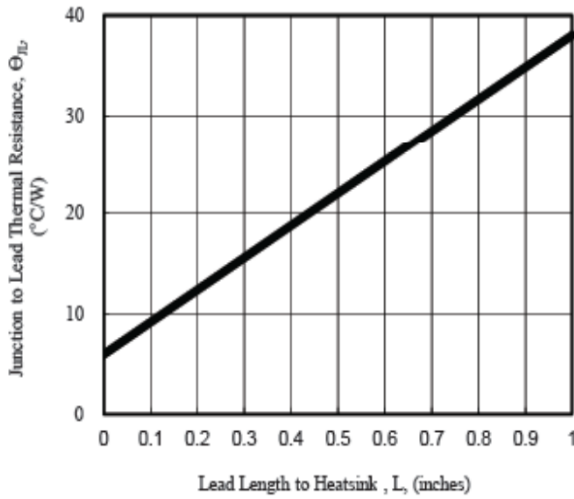


Fig. 3 - Typical Thermal Resistance v.s. Lead Length

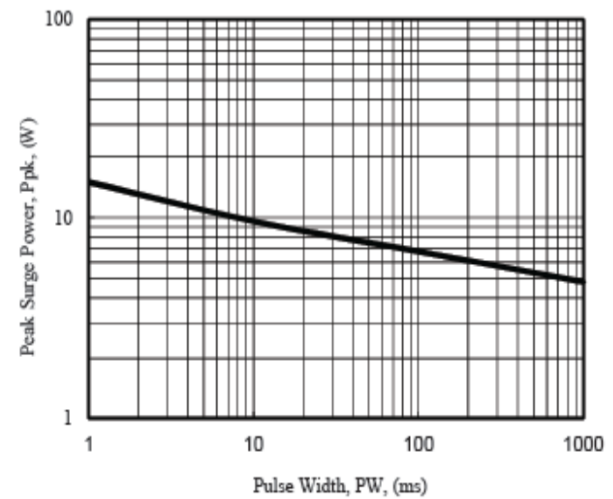
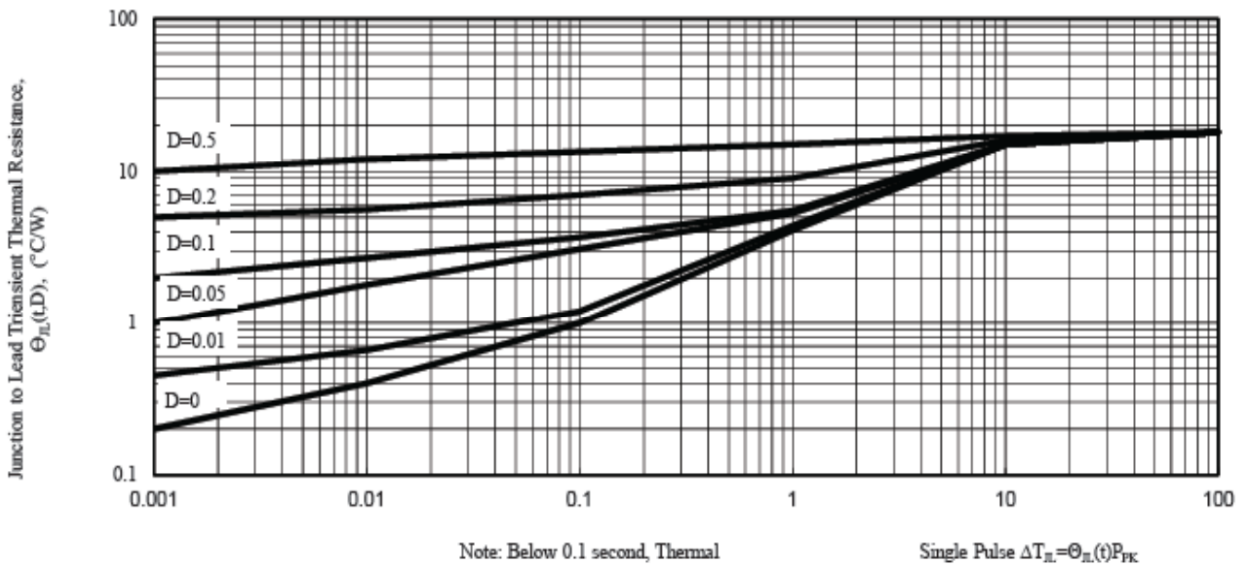


Fig. 4 - Maximum Surge Power



Note: Below 0.1 second, Thermal

Single Pulse $\Delta T_{pk} = \Theta_{JL}(t)P_{pk}$

Fig. 5 - Typical Thermal Response L, Lead Length=3/8inch

Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode	