

**FEATURES:**

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).

**MAXIMUM RATINGS**

Rating	Value
Operating and storage temperature range	-65 to +150°C
DC Power Dissipation	5 Watts
Power Derating	40mW/°C over 25°C
Forward Voltage @ 1.0 Amp	1.2 Volts max
Steady state power T <sub>L</sub> ≤ 25°C 3/8" from body	5 W
Thermal resistance	25°C/W
Solder temperature	260°C for 10 seconds maximum

**ELECTRICAL CHARACTERISTICS**

Type	Nominal Zener Voltage V <sub>Z</sub> @ I <sub>ZT</sub> Volts	Zener Test Current I <sub>ZT</sub> mA	Maximum Zener Impedance Z <sub>ZT</sub> @ I <sub>ZT</sub> Ohms (A & B only)	A, B, C Maximum Knee Impedance Z <sub>ZK</sub> @ 1.0 mA Ohms	Maximum Reverse Leakage Current I <sub>R</sub> @ V <sub>R</sub> µA	I <sub>R</sub> Test voltage Non & A Suffix Volts V <sub>R</sub>	I <sub>R</sub> Test voltage B, C, D Suffix Volts V <sub>R</sub>	B, C, D Maximum Zener Current I <sub>ZM</sub> mA	Maximum Surge Current I <sub>ZSM</sub> A
1N5333B	3.3	380	3.0	400	300	1.0	1.0	1440	20.0
1N5334B	3.6	350	2.5	500	150	1.0	1.0	1320	18.7
1N5335B	3.9	320	2.0	500	50	1.0	1.0	1220	17.6
1N5336B	4.3	290	2.0	500	10	1.0	1.0	1100	16.4
1N5337B	4.7	260	2.0	450	5.0	1.0	1.0	1010	15.3
1N5338B	5.1	240	1.5	400	1.0	1.0	1.0	930	14.4
1N5339B	5.6	220	1.0	400	1.0	2.0	2.0	865	13.4
1N5340B	6.0	200	1.0	300	1.0	3.0	3.0	790	12.7
1N5341B	6.2	200	1.0	200	1.0	3.0	3.0	765	12.4
1N5342B	6.8	175	1.0	200	10	4.9	5.2	700	11.5
1N5343B	7.5	175	1.5	200	10	5.4	5.7	630	10.7
1N5344B	8.2	150	1.5	200	10	5.9	6.2	580	10.0
1N5345B	8.7	150	2.0	200	10	6.3	6.6	545	9.5
1N5346B	9.1	150	2.0	150	7.5	6.6	6.9	520	9.2
1N5347B	10	125	2.0	125	5.0	7.2	7.6	475	8.6
1N5348B	11	125	2.5	125	5.0	8.0	8.4	430	8.0
1N5349B	12	100	2.5	125	2.0	8.6	9.1	395	7.5
1N5350B	13	100	2.5	100	1.0	9.4	9.9	365	7.0
1N5351B	14	100	2.5	75	1.0	10.1	10.6	340	6.7
1N5352B	15	75	2.5	75	1.0	10.8	11.5	315	6.3
1N5353B	16	75	2.5	75	1.0	11.5	12.2	295	6.0
1N5354B	17	70	2.5	75	0.5	12.2	12.9	280	5.8
1N5355B	18	70	2.5	75	0.5	13.0	13.7	264	5.5

## ELECTRICAL CHARACTERISTICS

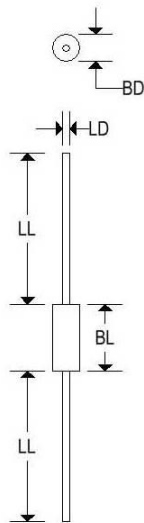
Type	Nominal Zener Voltage $V_Z @ I_{ZT}$ Volts	Zener Test Current $I_{ZT}$ mA	Maximum Zener Impedance $Z_{ZT} @ I_{ZT}$ Ohms	A,B,C Maximum Knee Impedance $Z_{ZK} @ 1.0$ mA Ohms	Maximum Reverse Leakage Current $I_R @ V_R$ $\mu A$	$I_R$ Test voltage Non & A Suffix Volts $V_R$	$I_R$ Test voltage B,C,D Suffix Volts $V_R$	B,C,D Maximum Zener Current $I_{ZM}$ mA	Maximum Surge Current $I_{ZSM}$ A
1N5356B	19	70	3.0	75	0.5	13.7	14.4	250	5.3
1N5357B	20	65	3.0	75	0.5	14.4	15.2	237	5.1
1N5358B	22	50	3.5	75	0.5	15.8	16.7	216	4.7
1N5359B	24	50	3.5	100	0.5	17.3	18.2	198	4.4
1N5360B	25	50	4.0	110	0.5	18.0	19.0	190	4.3
1N5361B	27	50	5.0	120	0.5	19.4	20.6	176	4.1
1N5362B	28	50	6.0	130	0.5	20.1	21.2	170	3.9
1N5363B	30	40	8.0	140	0.5	21.6	22.8	158	3.7
1N5364B	33	40	10	150	0.5	23.8	25.1	144	3.5
1N5365B	36	30	11	160	0.5	25.9	27.4	132	3.3
1N5366B	39	30	14	170	0.5	28.1	29.7	122	3.1
1N5367B	43	30	20	180	0.5	31.0	32.7	110	2.8
1N5368B	47	25	25	210	0.5	33.8	35.8	100	2.7
1N5369B	51	25	27	230	0.5	36.7	38.8	93	2.5
1N5370B	56	20	35	280	0.5	40.3	42.6	86	2.3
1N5371B	60	20	40	350	0.5	43.0	45.5	79	2.2
1N5372B	62	20	42	400	0.5	44.6	47.1	76	2.1
1N5373B	68	20	44	500	0.5	49.0	51.7	70	2.0
1N5374B	75	20	45	620	0.5	54.0	56.0	63	1.9
1N5375B	82	15	65	720	0.5	59.0	62.2	58	1.8
1N5376B	87	15	75	760	0.5	63.0	66.0	54.5	1.7
1N5377B	91	15	75	760	0.5	63.5	69.2	52.5	1.6
1N5378B	100	12	90	800	0.5	72.0	76.0	47.5	1.5
1N5379B	110	12	125	1000	0.5	79.2	83.6	43.0	1.4
1N5380B	120	10	170	1150	0.5	84.6	91.2	39.5	1.3
1N5381B	130	10	190	1250	0.5	93.6	98.8	36.6	1.2
1N5382B	140	8	230	1500	0.5	101	106	34.0	1.2
1N5383B	150	8	330	1500	0.5	108	114	31.6	1.1
1N5384B	160	8	350	1650	0.5	115	122	29.4	1.1
1N5385B	170	8	380	1750	0.5	122	129	28.0	1.0
1N5386B	180	5	430	1750	0.5	130	137	26.4	1.0
1N5387B	190	5	450	1850	0.5	137	144	25.0	0.9
1N5388B	200	5	480	1850	0.5	144	152	23.6	0.8

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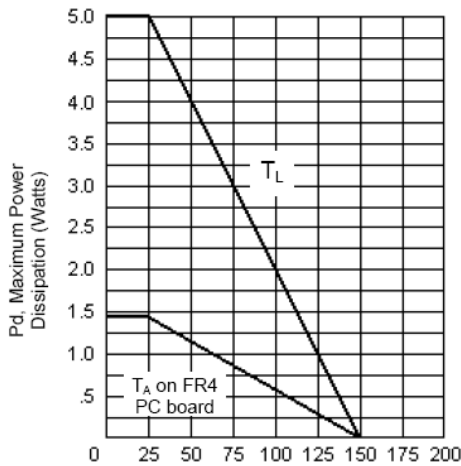
Zener Diodes  
5 Watt

## MECHANICAL CHARACTERISTICS

Case	Digi V
Marking	Body painted, alpha-numeric
Polarity	Cathode band

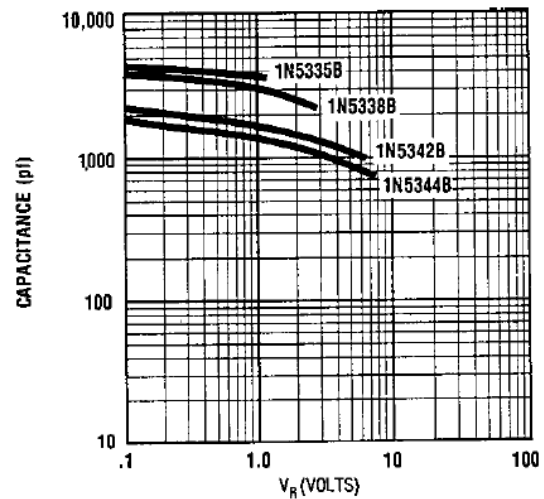


	Digi V			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.130	0.145	3.302	3.683
BL	0.330	0.350	8.382	8.890
LD	0.037	0.043	0.940	1.092
LL	1.000	-	25.400	-



$T_L$ , Lead temperature ( $^{\circ}\text{C}$ ) 3/8" from body, or  
 $T_A$  ambient temperature on FR4 PC Board

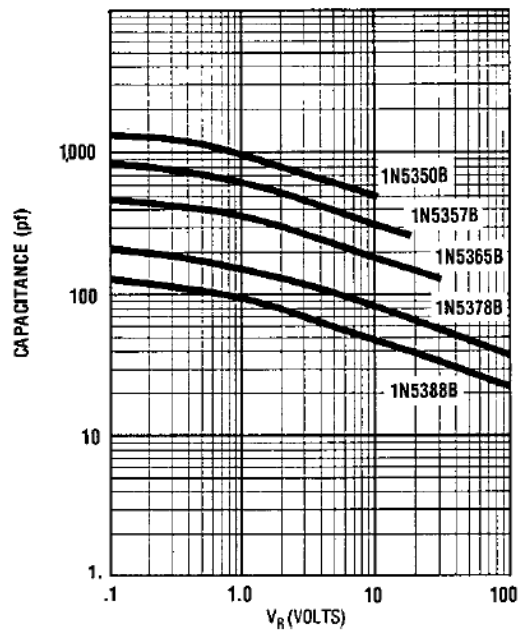
**FIGURE 1**  
Power Derating Curve



**FIGURE 2**  
Typical Capacitance vs.  
Reverse Voltage for 5 Watt Zeners

# 1N5333B-1N5388B

Zener Diodes  
5 Watt



**FIGURE 3**  
Typical Capacitance vs.  
Reverse Voltage for 5 Watt Zeners