



Micro Commercial Components
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1N5221 THRU 1N5267

Features

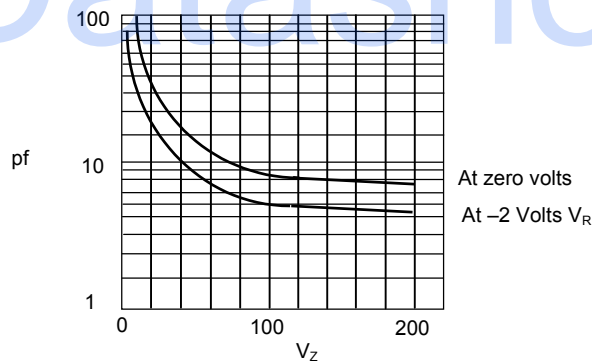
- Wide Voltage Range Available
- Glass Package
- High Temp Soldering: 250°C for 10 Seconds At Terminals

500 mW Zener Diode 2.4 to 75 Volts

Maximum Ratings

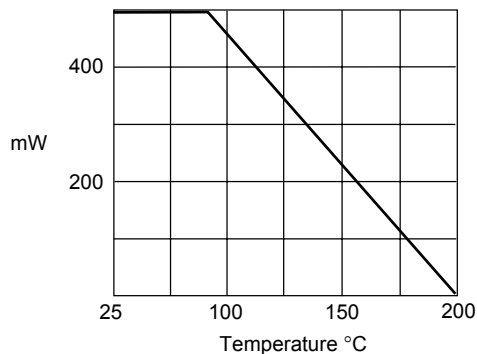
- Operating Temperature: -65°C to +200°C
- Storage Temperature: -65°C to +200°C
- 500 mWatt DC Power Dissipation
- Power Derating: 4.0mW/°C above 50°C
- Forward Voltage @ 200mA: 1.1 Volts

Figure 1 - Typical Capacitance



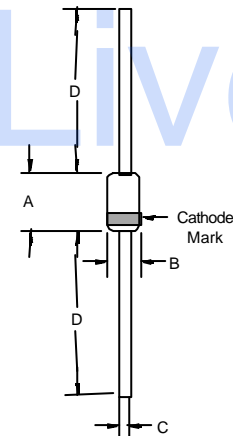
Typical Capacitance (pf) – versus – Zener voltage (Vz)

Figure 2 - Derating Curve



Power Dissipation (mW) - Versus - Temperature °C

DO-35



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

1N5221 thru 1N5267

ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	NOMINAL ZENER VOLTAGE V_Z @ I_{ZT} VOLTS	TEST CURRENT I_{ZT} mA	MAXIMUM ZENER IMPEDANCE 'B' SUFFIX ONLY		MAXIMUM REVERSE LEAKAGE CURRENT I_R @ V_R μ A VOLTS	MAX. ZENER VOLTAGE TEMP COEFFICIENT 'B' SUFFIX ONLY %/°C
			Z_{ZT} @ I_{ZT} OHMS	Z_{ZK} @ $I_{ZK} = 0.25$ mA OHMS		
1N5221	2.4	20	30	1200	100 1.0	-0.085
1N5222	2.5	20	30	1250	100 1.0	-0.085
1N5223	2.7	20	30	1300	75 1.0	-0.080
1N5224	2.8	20	30	1400	75 1.0	-0.080
1N5225	3.0	20	29	1600	50 1.0	-0.075
1N5226	3.3	20	28	1600	25 1.0	-0.070
1N5227	3.6	20	24	1700	15 1.0	-0.065
1N5228	3.9	20	23	1900	10 1.0	-0.060
1N5229	4.3	20	22	2000	5.0 1.0	\pm 0.055
1N5230	4.7	20	19	1900	5.0 2.0	\pm 0.030
1N5231	5.1	20	17	1600	5.0 2.0	\pm 0.030
1N5232	5.6	20	11	1600	5.0 3.0	+0.038
1N5233	6.0	20	7.0	1600	5.0 3.5	+0.038
1N5234	6.2	20	7.0	1000	5.0 4.0	+0.045
1N5235	6.8	20	5.0	750	3.0 5.0	+0.050
1N5236	7.5	20	6.0	500	3.0 6.0	+0.058
1N5237	8.2	20	8.0	500	3.0 6.5	+0.062
1N5238	8.7	20	8.0	600	3.0 6.5	+0.065
1N5239	9.1	20	10	600	3.0 7.0	+0.068
1N5240	10	20	17	600	3.0 8.0	+0.075
1N5241	11	20	22	600	2.0 8.4	+0.076
1N5242	12	20	30	600	1.0 9.1	+0.077
1N5243	13	9.5	13	600	0.5 9.9	+0.079
1N5244	14	9.0	15	600	0.1 10	+0.082
1N5245	15	8.5	16	600	0.1 11	+0.082
1N5246	16	7.8	17	600	0.1 12	+0.083
1N5247	17	7.4	19	600	0.1 13	+0.084
1N5248	18	7.0	21	600	0.1 14	+0.085
1N5249	19	6.6	23	600	0.1 14	+0.086
1N5250	20	6.2	25	600	0.1 15	+0.086
1N5251	22	5.6	29	600	0.1 17	+0.087
1N5252	24	5.2	33	600	0.1 18	+0.088
1N5253	25	5.0	35	600	0.1 19	+0.089
1N5254	27	4.6	41	600	0.1 21	+0.090
1N5255	28	4.5	44	600	0.1 21	+0.091
1N5256	30	4.2	49	600	0.1 23	+0.091
1N5257	33	3.8	58	700	0.1 25	+0.092
1N5258	36	3.4	70	700	0.1 27	+0.093
1N5259	39	3.2	80	800	0.1 30	+0.094
1N5260	43	3.0	93	900	0.1 33	+0.095
1N5261	47	2.7	105	1000	0.1 36	+0.095
1N5262	51	2.5	125	1100	0.1 39	+0.096
1N5263	56	2.2	150	1300	0.1 43	+0.096
1N5264	60	2.1	170	1400	0.1 46	+0.097
1N5265	62	2.0	185	1400	0.1 47	+0.097
1N5266	68	1.8	230	1600	0.1 52	+0.097
1N5267	75	1.7	270	1700	0.1 58	+0.098

NOTE 1: Table as shown lists type numbers, which indicate a tolerance of $\pm 20\%$ with guaranteed limits on only V_Z , I_R , and V_F . Devices with guaranteed limits on all six parameters are indicated by suffix "A" for $\pm 10\%$, "B" for $\pm 5\%$, "C" for $\pm 2\%$, and "D" for $\pm 1\%$ tolerance

NOTE 2: The electrical characteristics are measured after allowing the device to stabilize for 20 seconds.

NOTE 3: Temperature coefficient (\hat{a}_{VZ}). Test conditions for temperature coefficient are as follows:

- $I_{ZT} = 7.5$ mA, $T_1 = 25^\circ$ C, $T_2 = 125^\circ$ C (1N5221 thru 1N5242)
- $I_{ZT} = \text{Rated } I_{ZT}$, $T_1 = 25^\circ$ C, $T_2 = 125^\circ$ C (1N5243 thru 1N5267)

Device to be temperature stabilized with current applied prior to reading breakdown voltage at the specified ambient temperature.

1N5721 thru 1N5267

Figure 1
Zener Voltage versus Zener Current – $V_z = 1$ thru 16 Volts

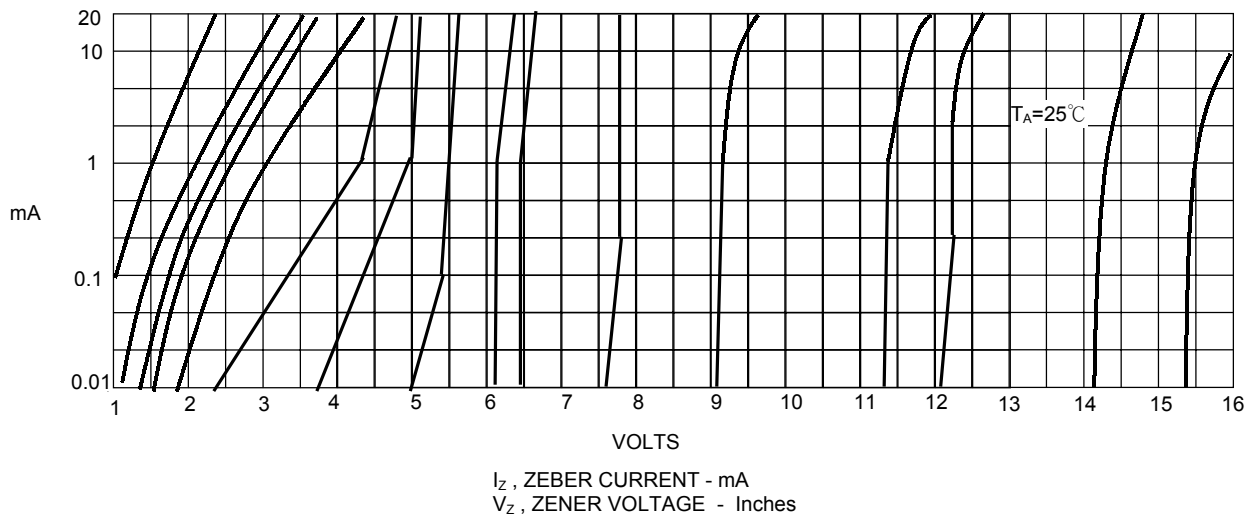
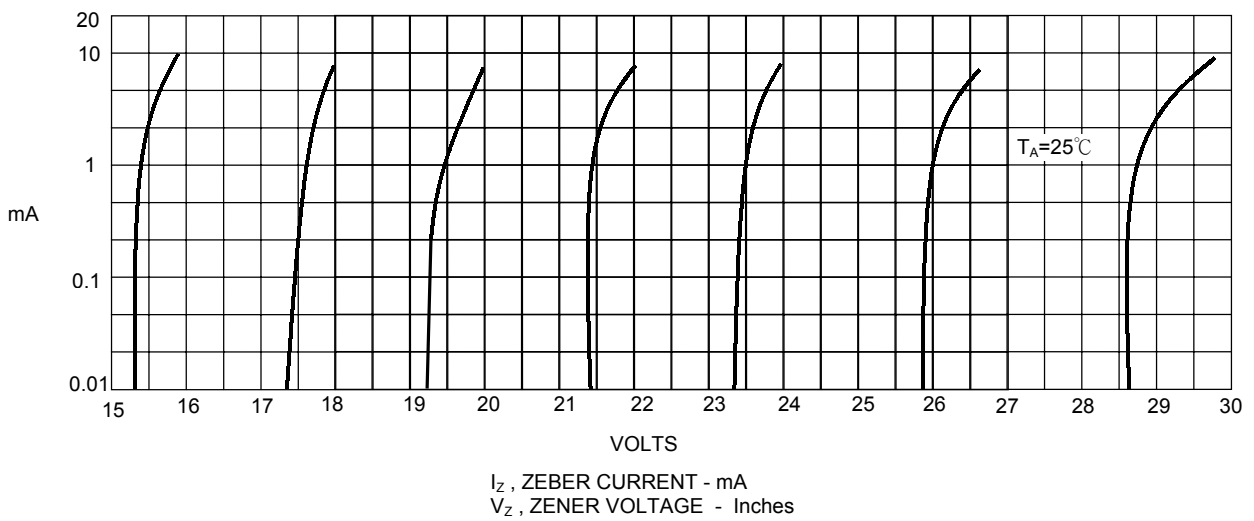


Figure 2
Zener Voltage versus Zener Current – $V_z = 15$ thru 30 Volts



1N5721 thru 1N5267

Figure 3
Zener Voltage versus Zener Current – $V_z = 30$ thru 75 Volts

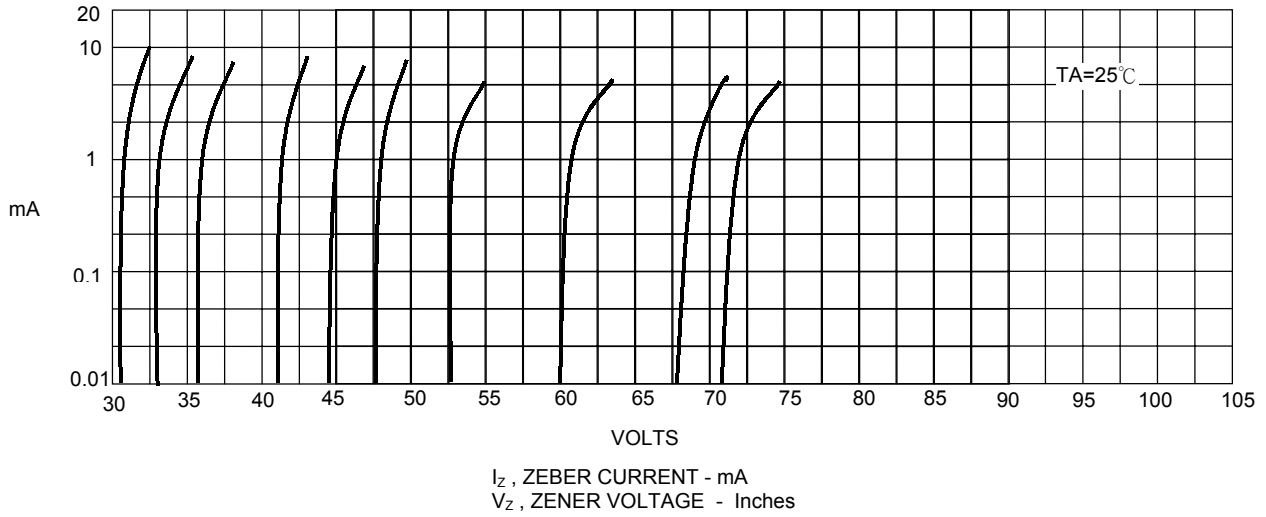


Figure 4
Thermal resistance from junction to ambient as a function of pulse duration

