



Micro Commercial Components
 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4933

**1N5221B
 THRU
 1N5267B**

Features

- Wide Voltage Range Available
- Glass Package
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Marking : Cathode band and type number
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Moisture Sensitivity: Level 1

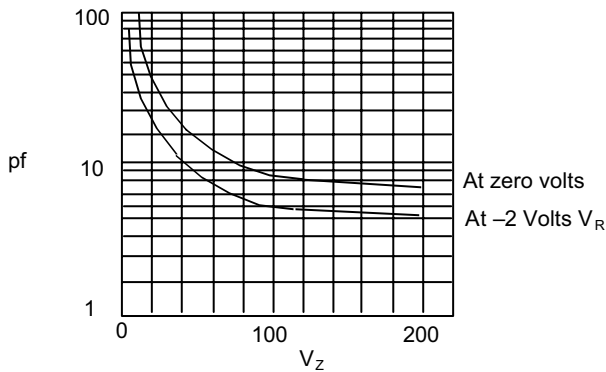
Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- 500 mWatt DC Power Dissipation
- Power Derating: 4.0mW/°C above 50°C
- Forward Voltage @ 200mA: 1.1 Volts

**500 mW
 Zener Diode
 2.4 to 75 Volts**

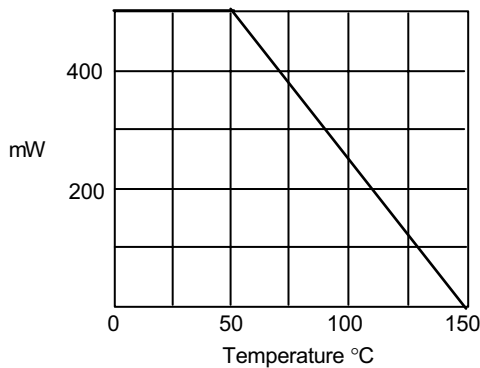
DO-35

Figure 1 - Typical Capacitance

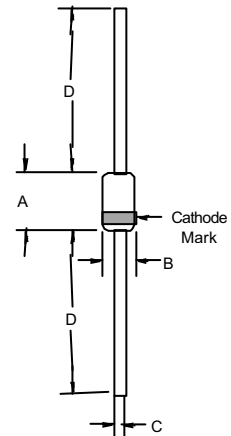


Typical Capacitance (pf) – versus – Zener voltage (V_Z)

Figure 2 - Derating Curve



Power Dissipation (mW) - Versus - Temperature °C



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

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(C)-I.

1N5221B thru 1N5267B

Micro Commercial Components

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		MAX. ZENER VOLTAGE TEMP COEFFICIENT 'B' SUFFIX ONLY % / °C
			Z_{ZT} @ I_{ZT}	Z_{ZK} @ $I_{ZK} = 0.25mA$	I_R @ V_R		
			OHMS	OHMS	μA	VOLTS	
1N5221B	2.4	20	30	1200	100	1.0	-0.085
1N5222B	2.5	20	30	1250	100	1.0	-0.085
1N5223B	2.7	20	30	1300	75	1.0	-0.080
1N5224B	2.8	20	30	1400	75	1.0	-0.080
1N5225B	3.0	20	29	1600	50	1.0	-0.075
1N5226B	3.3	20	28	1600	25	1.0	-0.070
1N5227B	3.6	20	24	1700	15	1.0	-0.065
1N5228B	3.9	20	23	1900	10	1.0	-0.060
1N5229B	4.3	20	22	2000	5.0	1.0	±0.055
1N5230B	4.7	20	19	1900	5.0	2.0	±0.030
1N5231B	5.1	20	17	1600	5.0	2.0	±0.030
1N5232B	5.6	20	11	1600	5.0	3.0	+0.038
1N5233B	6.0	20	7.0	1600	5.0	3.5	+0.038
1N5234B	6.2	20	7.0	1000	5.0	4.0	+0.045
1N5235B	6.8	20	5.0	750	3.0	5.0	+0.050
1N5236B	7.5	20	6.0	500	3.0	6.0	+0.058
1N5237B	8.2	20	8.0	500	3.0	6.5	+0.062
1N5238B	8.7	20	8.0	600	3.0	6.5	+0.065
1N5239B	9.1	20	10	600	3.0	7.0	+0.068
1N5240B	10	20	17	600	3.0	8.0	+0.075
1N5241B	11	20	22	600	2.0	8.4	+0.076
1N5242B	12	20	30	600	1.0	9.1	+0.077
1N5243B	13	9.5	13	600	0.5	9.9	+0.079
1N5244B	14	9.0	15	600	0.1	10	+0.082
1N5245B	15	8.5	16	600	0.1	11	+0.082
1N5246B	16	7.8	17	600	0.1	12	+0.083
1N5247B	17	7.4	19	600	0.1	13	+0.084
1N5248B	18	7.0	21	600	0.1	14	+0.085
1N5249B	19	6.6	23	600	0.1	14	+0.086
1N5250B	20	6.2	25	600	0.1	15	+0.086
1N5251B	22	5.6	29	600	0.1	17	+0.087
1N5252B	24	5.2	33	600	0.1	18	+0.088
1N5253B	25	5.0	35	600	0.1	19	+0.089
1N5254B	27	4.6	41	600	0.1	21	+0.090
1N5255B	28	4.5	44	600	0.1	21	+0.091
1N5256B	30	4.2	49	600	0.1	23	+0.091
1N5257B	33	3.8	58	700	0.1	25	+0.092
1N5258B	36	3.4	70	700	0.1	27	+0.093
1N5259B	39	3.2	80	800	0.1	30	+0.094
1N5260B	43	3.0	93	900	0.1	33	+0.095
1N5261B	47	2.7	105	1000	0.1	36	+0.095
1N5262B	51	2.5	125	1100	0.1	39	+0.096
1N5263B	56	2.2	150	1300	0.1	43	+0.096
1N5264B	60	2.1	170	1400	0.1	46	+0.097
1N5265B	62	2.0	185	1400	0.1	47	+0.097
1N5266B	68	1.8	230	1600	0.1	52	+0.097
1N5267B	75	1.7	270	1700	0.1	56	+0.098

NOTE 1: suffix "B" = 5% tolerance on nominal Zener voltage, suffix "C" signifies 2%.

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

NOTE 3: Temperature coefficient (α_{VZ}). Test conditions for temperature coefficient are as follows:

- $I_{ZT} = 7.5mA$, $T_1 = 25^\circ C$, $T_2 = 125^\circ C$ (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.

1N5221B thru 1N5267B

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

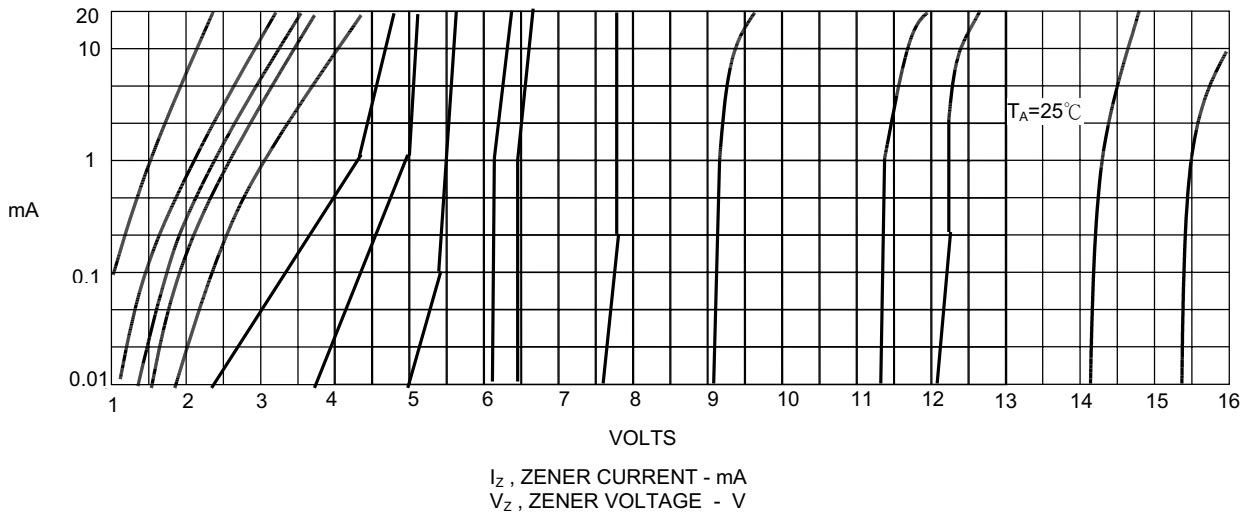
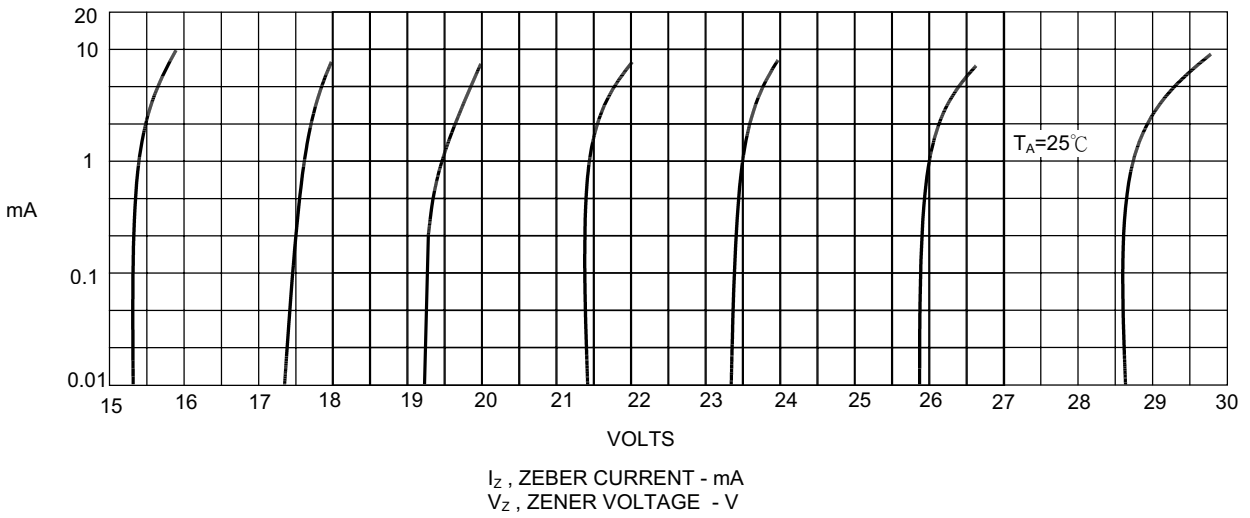


Figure 2
Zener Voltage versus Zener Current – $V_z = 15$ thru 30 Volts



1N5221B thru 1N5267B

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

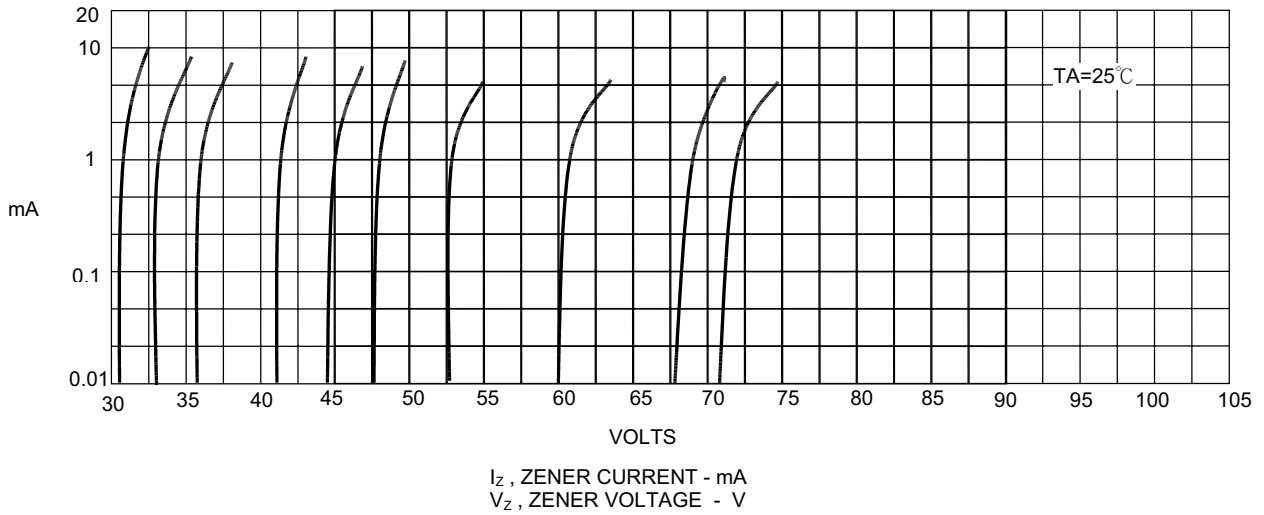
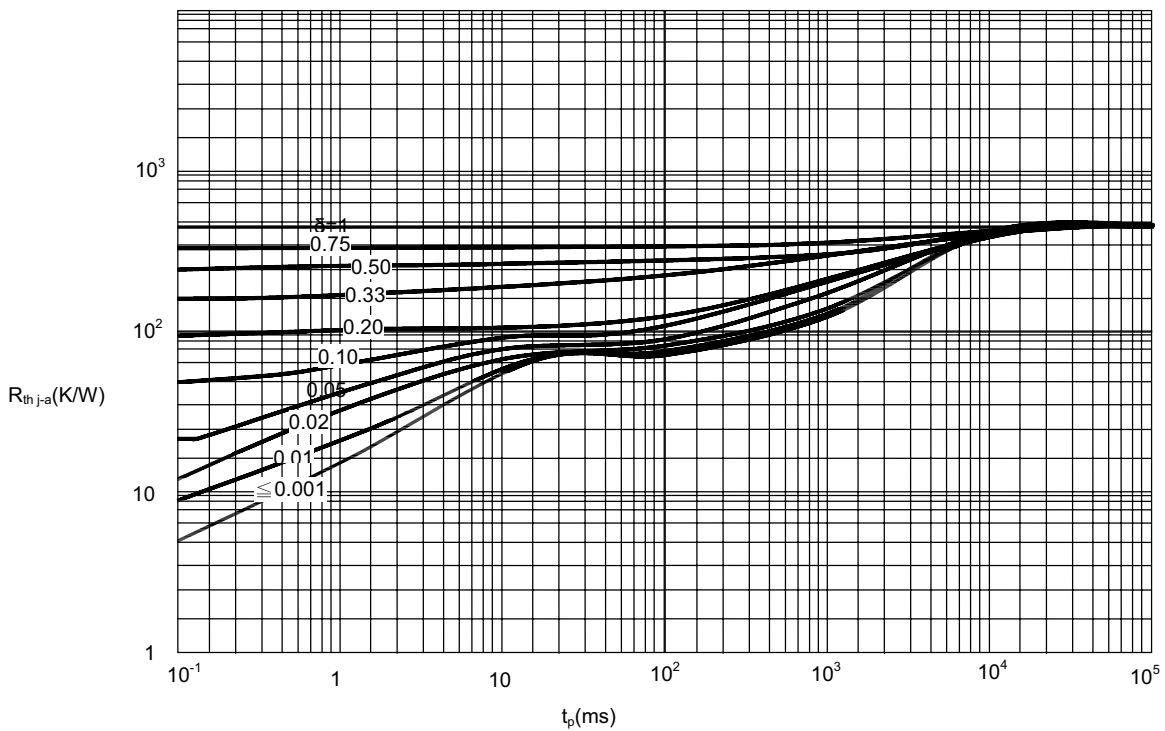


Figure 4
Thermal resistance from junction to ambient as a function of pulse duration





Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

www.mccsemi.com