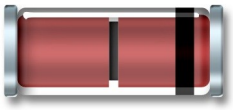
1N5221BUR-1 thru 1N5272BUR-1

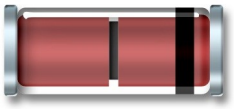
500 mW Zener Diode Series

Rev. V1

Features

- JEDEC registered 1N5221 thru 1N5272 series
- Standard voltage tolerances are plus/minus 5% with B suffix, 10% with A suffix identification.
- Tight tolerances available in plus or minus 2% or 1% with C or D suffix respectively.
- 500 mW power handling
- Hermetically sealed surfacemount glass DO-213AA package.





Electrical Specifications: T_A = +25°C (unless otherwise specified)

Part #[1]	Normal Zener Voltage V_Z	Zener Test Current I_{ZT}	Max. Zener Impedance Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		Max. Reverse Leakage I_R @ V_R		Max. Temperature Co-efficient aV_Z
	Volts	mA	Ohms	Ohms	mA	µA	Volts	%/°C
1N5221BUR-1	2.4	20	30	1200	0.25	100	1.0	-0.085
1N5222BUR-1	2.5	20	30	1250	0.25	100	1.0	-0.085
1N5223BUR-1	2.7	20	30	1300	0.5	75	1.0	-0.080
1N5224BUR-1	2.8	20	30	1400	0.5	75	1.0	-0.080
1N5225BUR-1	3.0	20	29	1600	0.25	50	1.0	-0.075
1N5226BUR-1	3.3	20	28	1600	0.25	25	1.0	-0.070
1N5227BUR-1	3.6	20	24	1700	0.25	15	1.0	-0.065
1N5228BUR-1	3.9	20	23	1900	0.25	10	1.0	-0.060
1N5229BUR-1	4.3	20	22	2000	0.25	5.0	1.0	+/-0.055
1N5230BUR-1	4.7	20	19	1900	0.25	5.0	2.0	+/-0.030
1N5231BUR-1	5.1	20	17	1600	0.25	5.0	2.0	+/-0.030
1N5232BUR-1	5.6	20	11	1600	0.25	5.0	3.0	+0.038
1N5233BUR-1	6.0	20	7.0	1600	0.25	5.0	3.5	+0.038
1N5234BUR-1	6.2	20	7.0	1000	0.25	5.0	4.0	+0.045
1N5235BUR-1	6.8	20	5.0	750	0.25	3.0	5.0	+0.050
1N5236BUR-1	7.5	20	6.0	500	0.25	3.0	6.0	+0.058
1N5237BUR-1	8.2	20	8.0	500	0.25	3.0	6.5	+0.062
1N5238BUR-1	8.7	20	8.0	600	0.25	3.0	6.5	+0.065
1N5239BUR-1	9.1	20	10	600	0.25	3.0	7.0	+0.068
1N5240BUR-1	10	20	17	600	0.25	3.0	8.0	+0.075
1N5241BUR-1	11	20	22	600	0.25	2.0	8.4	+0.076
1N5242BUR-1	12	20	30	600	0.25	1.0	9.1	+0.077
1N5243BUR-1	13	9.5	13	600	0.25	0.5	9.9	+0.079
1N5244BUR-1	14	9.0	15	600	0.25	0.1	10	+0.082
1N5245BUR-1	15	8.5	16	600	0.25	0.1	11	+0.082
1N5246BUR-1	16	7.8	17	600	0.25	0.1	12	+0.083
1N5247BUR-1	17	7.4	19	600	0.25	0.1	13	+0.084
1N5248BUR-1	18	7.0	21	600	0.25	0.1	14	+0.085

1. The JEDEC type numbers shown (B Suffix) have a +5% tolerance on nominal Zener Voltage. The suffix A is used to identify +10% tolerance; suffix C is used to identify +2%: and suffix D is used to identify +1%; no suffix indicates +20%.

Continued on next page

1N5221BUR-1 thru 1N5272BUR-1

500 mW Zener Diode Series

Rev. V1

Electrical Specifications: T_A = +25°C (unless otherwise specified)

Part #[1]	Normal Zener Voltage V_Z	Zener Test Current I_{ZT}	Max. Zener Impedance Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		Max. Reverse Leakage I_R @ V_R		Max. Temperature Co-efficient aV_Z
	Volts	mA	Ohms	Ohms	mA	µA	Volts	%/°C
1N5249BUR-1	19	6.6	23	600	0.25	0.1	14	+0.086
1N5250BUR-1	20	6.2	25	600	0.25	0.1	15	+0.086
1N5251BUR-1	22	5.6	29	600	0.25	0.1	17	+0.087
1N5252BUR-1	24	5.2	33	600	0.25	0.1	18	+0.088
1N5253BUR-1	25	5.0	35	600	0.25	0.1	19	+0.089
1N5254BUR-1	27	4.6	41	600	0.25	0.1	21	+0.090
1N5255BUR-1	28	4.5	44	600	0.25	0.1	21	+0.091
1N5256BUR-1	30	4.2	49	600	0.25	0.1	23	+0.091
1N5257BUR-1	33	3.8	58	700	0.25	0.1	25	+0.092
1N5258BUR-1	36	3.4	70	700	0.25	0.1	27	+0.093
1N5259BUR-1	39	3.2	80	800	0.25	0.1	30	+0.094
1N5260BUR-1	43	3.0	93	900	0.25	0.1	33	+0.095
1N5261BUR-1	47	2.7	105	1000	0.25	0.1	36	+0.095
1N5262BUR-1	51	2.5	125	1100	0.25	0.1	39	+0.096
1N5263BUR-1	56	2.2	150	1300	0.25	0.1	43	+0.096
1N5264BUR-1	60	2.1	170	1400	0.25	0.1	46	+0.097
1N5265BUR-1	62	2.0	185	1400	0.25	0.1	47	+0.097
1N5266BUR-1	68	1.8	230	1600	0.25	0.1	52	+0.097
1N5267BUR-1	75	1.7	270	1700	0.25	0.1	56	+0.098
1N5268BUR-1	82	1.5	330	2000	0.25	0.1	62	+0.098
1N5269BUR-1	87	1.4	370	2200	0.25	0.1	68	+0.099
1N5270BUR-1	91	1.4	400	2300	0.25	0.1	69	+0.099
1N5271BUR-1	100	1.3	500	2600	0.25	0.1	76	+0.110
1N5272BUR-1	110	1.1	750	3000	0.25	0.1	84	+0.110

1. The JEDEC type numbers shown (B Suffix) have a +5% tolerance on nominal Zener Voltage. The suffix A is used to identify +10% tolerance; suffix C is used to identify +2%: and suffix D is used identify +1%; no suffix indicates +20%.

Absolute Maximum Ratings[(2), (3)]

Parameter	Symbol	Absolute Maximum
Thermal Resistance	$R_{\theta JEC}$ $R_{\theta JA}$ (4)	100°C/W 250°C/W
Steady-State Power (5)	P_D	0.5 W
Forward Voltage	V_F	1.5 V @ 200 mA
Operating / Storage Temperature	T_J and T_{STG}	-65°C to +175°C

2. Exceeding any one or combination of these limits may cause permanent damage to this device.
3. VPT Components does not recommend sustained operation near these survivability limits.
4. When mounted on FR4 PC board (1 oz Cu) with recommended footprint.
5. At end cap temperature $T_{EC} \leq 125^oC$ or ambient temperature TA $\leq 50^oC$ when mounted on FR4 PC board as described for thermal resistance above.

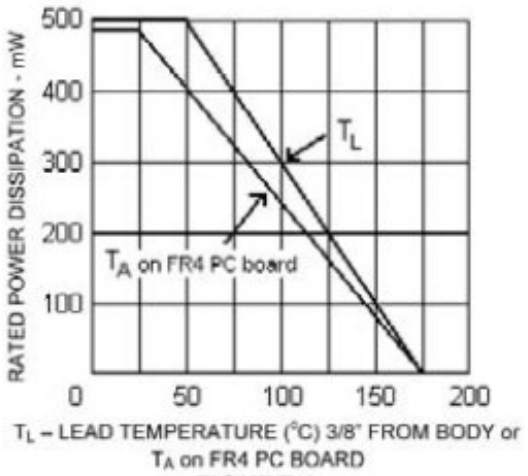


FIGURE 1
POWER DERATING CURVE

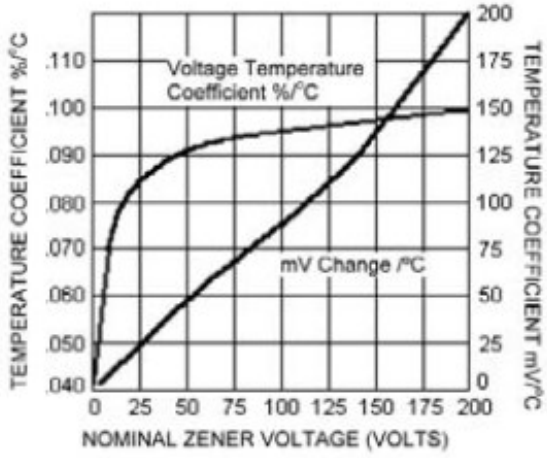


FIGURE 2
ZENER VOLTAGE TEMPERATURE
COEFFICIENT vs. ZENER VOLTAGE

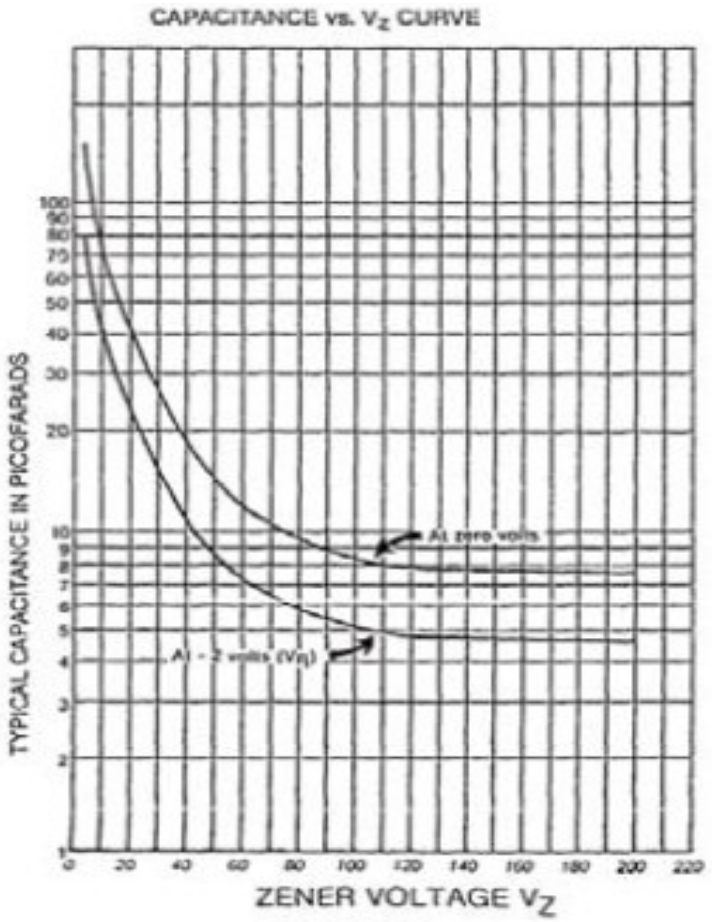
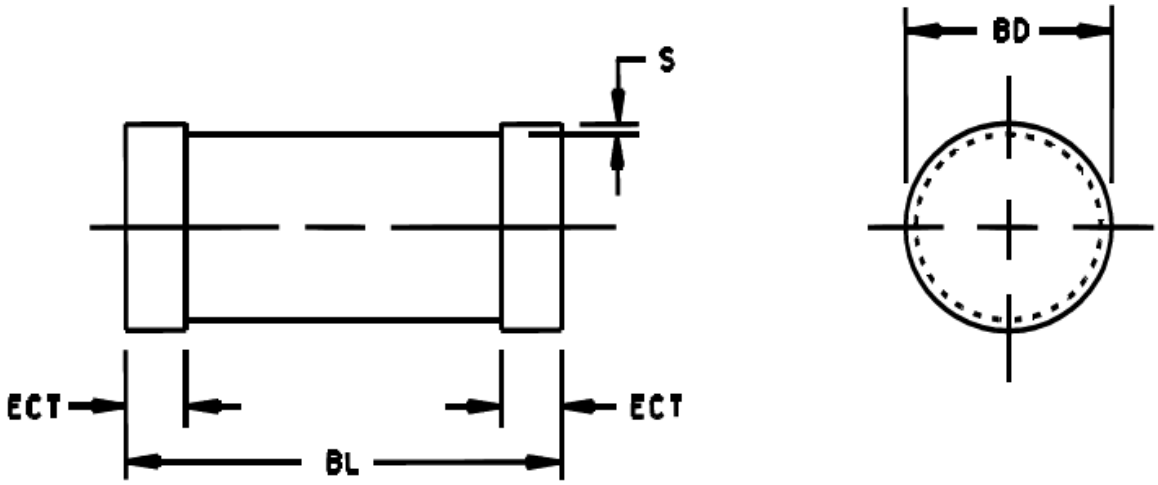


FIGURE 3
CAPACITANCE vs. ZENER VOLTAGE

Outline Drawing (DO-213AA)



Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	.063	.067	1.60	1.70
ECT	.016	.022	0.41	0.56
BL	.130	.146	3.30	3.71
S	.001 min		0.03 min	

NOTES:
1. Dimensions are in inches.
2. Millimeter equivalents are given for general information only.
3. In accordance with ASME Y14.5M, diameters are equivalent to Φx symbology.