

1N6102 thru 1N6137US 1N6102A thru 1N6137AUS



**500W Bipolar Transient Voltage Suppressor
axial and surface mount (US)**

HIGH-RELIABILITY PRODUCTS

Features

- Low dynamic impedance
- Hermetically sealed non-cavity parts
- 500W peak pulse power
- 1.5W continuous power
- Qualified to Mil-PRF-19500/516, levels JAN thru JANS

Quick Reference Data

- $V_{BR\ MIN} = 6.12$ to 190 Volts
- $V_{RWM} = 5.2$ to 152 Volts
- $V_C(max) = 11$ to 286 Volts

Electrical specifications (Electrical specifications at $T=25^{\circ}C$ unless otherwise specified)

Part Number	Min Breakdown Voltage $V_{(BR)}@I_{(BR)}$	Test Current $I_{(BR)}$	Peak Reverse Working Voltage V_{RWM}	Maximum Reverse Current @ V_{RWM} I_{R1}	Maximum Clamping Voltage $V_C @ I_P$	Maximum Peak Current $I_P, T_P=1mS$	Maximum Temperature Coefficient of V_{BR} α_{VZ}	Maximum reverse Current @ $V_{RWM}, T_a= 150^{\circ}C$
	Volts (DC)	mA (DC)	Volts (DC)	μA (DC)	Volts (Peak)	Amp (Peak)	%/°C	μA (DC)
1N6102	6.12	175	5.2	100	11.0	45.4	0.05	4,000
1N6102A	6.46	175	5.2	100	10.5	47.6	0.05	4,000
1N6103	6.75	175	5.7	50	11.8	42.4	0.06	750
1N6103A	7.13	175	5.7	50	11.2	44.6	0.06	750
1N6104	7.38	150	6.2	20	12.7	39.4	0.06	500
1N6104A	7.79	150	6.2	20	12.1	41.3	0.06	500
1N6105	8.19	150	6.9	20	14.0	35.7	0.06	300
1N6105A	8.65	150	6.9	20	13.4	37.3	0.06	300
1N6106	9.00	125	7.6	20	15.2	32.9	0.07	200
1N6106A	9.50	125	7.6	20	14.5	34.5	0.07	200
1N6107	9.90	125	8.4	20	16.3	30.7	0.07	200
1N6107A	10.45	125	8.4	20	15.6	32.0	0.07	200
1N6108	10.80	100	9.1	20	17.7	28.2	0.07	150
1N6108A	11.40	100	9.1	20	16.9	29.6	0.07	150
1N6109	11.70	100	9.9	20	19.0	26.3	0.08	150
1N6109A	12.35	100	9.9	20	18.2	27.5	0.08	150

Electrical specifications (Electrical specifications at T=25°C unless otherwise specified)

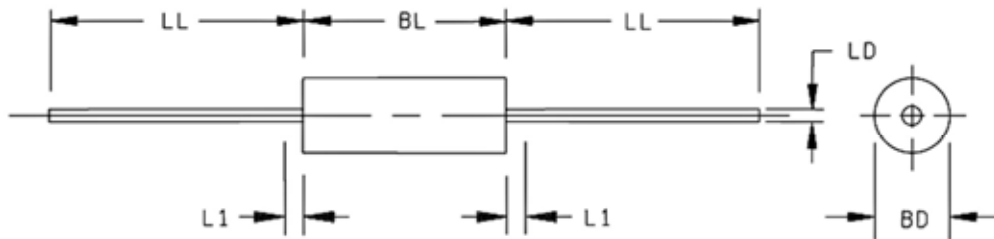
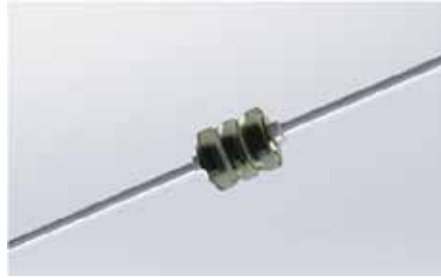
Part Number	Min Breakdown Voltage $V_{(BR)}@I_{(BR)}$	Test Current $I_{(BR)}$	Peak Reverse Working Voltage V_{RWM}	Maximum Reverse Current @ V_{RWM} I_{R1}	Maximum Clamping Voltage $V_C @ I_P$	Maximum Peak Current $I_P, T_P=1mS$	Maximum Temperature Coefficient of V_{BR} α_{VZ}	Maximum reverse Current @ $V_{RWM},$ $T_a= 150^\circ C$
	Volts (DC)	mA (DC)	Volts (DC)	μA (DC)	Volts (Peak)	Amp (Peak)	%/°C	μA (DC)
1N6110	13.5	75	11.4	20	21.9	22.8	0.08	100
1N6110A	14.25	75	11.4	20	21.0	23.8	0.08	100
1N6111	14.40	75	12.2	20	23.4	21.4	0.08	100
1N6111A	15.20	75	12.2	20	22.3	22.4	0.08	100
1N6112	16.20	65	13.7	1	26.3	19.0	0.085	100
1N6112A	14.10	65	13.7	1	25.1	19.9	0.085	100
1N6113	18.0	65	15.2	1	29.0	17.2	0.085	100
1N6113A	19.0	65	15.2	1	27.7	18.0	0.085	100
1N6114	19.8	50	16.7	1	31.9	15.7	0.085	100
1N6114A	20.9	50	16.7	1	30.5	16.4	0.085	100
1N6115	21.6	50	18.2	1	34.8	14.4	0.09	100
1N6115A	22.8	50	18.2	1	33.3	15.0	0.09	100
1N6116	24.3	50	20.6	1	39.2	12.8	0.09	100
1N6116A	25.7	50	20.6	1	37.4	13.4	0.09	100
1N6117	27.0	40	22.8	1	43.6	11.5	0.09	100
1N6117A	28.5	40	22.8	1	41.6	12.0	0.09	100
1N6118	29.7	40	25.1	1	47.9	10.4	0.095	100
1N6118A	31.4	40	25.1	1	45.7	10.9	0.095	100
1N6119	32.4	30	27.4	1	52.3	9.6	0.095	100
1N6119A	34.2	30	27.4	1	49.9	10.0	0.095	100
1N6120	35.1	30	29.7	1	56.2	8.9	0.095	100
1N6120A	37.1	30	29.7	1	53.6	9.3	0.095	100
1N6121	38.7	30	32.7	1	62.0	8.1	0.095	100
1N6121A	40.9	30	32.7	1	59.1	8.5	0.095	100
1N6122	42.3	25	35.8	1	67.7	7.4	0.095	100
1N6122A	44.7	25	35.8	1	64.6	7.7	0.095	100
1N6123	45.9	25	38.8	1	73.5	6.8	0.095	100
1N6123A	48.5	25	38.8	1	70.1	7.1	0.095	100
1N6124	50.4	20	42.6	1	80.7	6.2	0.095	100
1N6124A	53.2	20	42.6	1	77.0	6.5	0.095	100

Electrical specifications (Electrical specifications at T=25°C unless otherwise specified)

Part Number	Min Breakdown Voltage $V_{(BR)}@I_{(BR)}$	Test Current $I_{(BR)}$	Peak Reverse Working Voltage V_{RWM}	Maximum Reverse Current @ V_{RWM} I_{R1}	Maximum Clamping Voltage $V_C @ I_P$	Maximum Peak Current $I_P, T_P=1mS$	Maximum Temperature Coefficient of V_{BR} α_{VZ}	Maximum reverse Current @ $V_{RWM},$ $T_a= 150^\circ C$
	Volts (DC)	mA (DC)	Volts (DC)	μA (DC)	Volts (Peak)	Amp (Peak)	%/°C	μA (DC)
1N6125	55.8	20	47.1	1	89.3	5.6	0.100	400
1N6125A	58.9	20	47.1	1	85.3	5.9	0.100	400
1N6126	61.2	20	51.7	1	98.0	5.1	0.100	400
1N6126A	64.6	20	51.7	1	97.1	5.1	0.100	400
1N6127	67.5	20	56.0	1	108.1	4.6	0.100	400
1N6127A	71.3	20	56.0	1	103.1	4.8	0.100	400
1N6128	73.8	15	62.2	1	118.2	4.2	0.100	400
1N6128A	77.9	15	62.2	1	112.8	4.4	0.100	400
1N6129	81.9	15	69.2	1	131.1	3.8	0.100	400
1N6129A	86.5	15	69.2	1	125.1	4.0	0.100	400
1N6130	90.0	12	76.0	1	144.1	3.5	0.100	400
1N6130A	95.0	12	76.0	1	137.6	3.6	0.100	400
1N6131	99.0	12	83.6	1	158.5	3.2	0.100	400
1N6131A	104.5	12	83.6	1	151.3	3.3	0.100	400
1N6132	108.0	10	91.2	1	172.9	2.9	0.100	400
1N6132A	114.0	10	91.2	1	165.1	3.0	0.105	400
1N6133	117.0	10	98.8	1	187.3	2.7	0.105	400
1N6133A	123.5	10	98.8	1	178.8	2.8	0.105	400
1N6134	135.0	8	114.0	1	216.2	2.3	0.105	400
1N6134A	142.5	8	114.0	1	206.3	2.4	0.105	400
1N6135	144.0	8	121.6	1	228.8	2.2	0.105	400
1N6135A	152.0	8	121.6	1	218.4	2.3	0.105	400
1N6136	162.0	5	136.8	1	257.4	1.9	0.110	400
1N6136A	171.0	5	136.8	1	245.7	2.0	0.110	400
1N6137	180.0	5	152.0	1	286.0	1.7	0.110	400
1N6137A	190.0	5	152.0	1	273.0	1.8	0.110	400

Outline Drawing

Axial types 1N6102 through 1N6137 and 1N6102A through 1N6137A



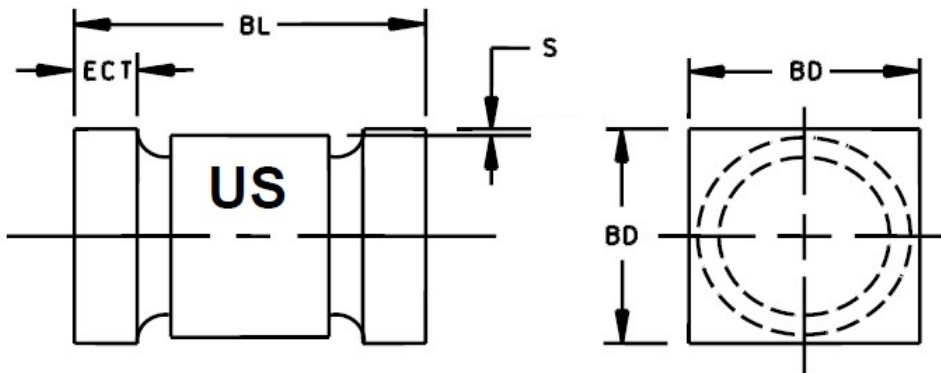
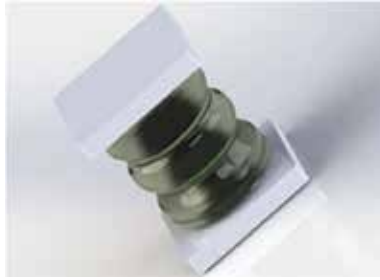
Letter	DIMENSIONS				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
BD	0.085	0.140	2.16	3.56	2
BL	0.140	0.185	3.56	4.70	
LD	0.026	0.033	0.66	0.84	
LL	1.00	1.30	25.4	33.02	
L1		0.030		0.76	3

Notes:

1. Dimensions are in inches. Millimeters are given for general information only
2. Dimension BD shall be measured at the largest diameter
3. Dimension L1 lead diameter is uncontrolled in this area
4. In accordance with ASME Y14.5M, diameters are equivalent to Φ x symbology

Outline Drawing

Surface mount types 1N6102US through 1N6137US and 1N6102AUS and 1N6137AUS



Letter	DIMENSIONS				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
BD	0.137	0.148	3.48	3.76	
BL	0.200	0.225	5.08	5.72	
ECT	0.019	0.028	0.48	0.71	
S	0.003		0.08		2

Notes:

1. Dimensions are in inches. Millimeters are given for general information only
2. Minimum clearance of glass body to mounting surface all orientations
3. In accordance with ASME Y14.5M, diameters are equivalent to Φ x symbology

Ordering Information

Part Number	Description
1N6102 thru 1N6137 1N6102A thru 1N6137A	Axial leaded part ⁽¹⁾
1N6102US thru 1N6137US 1N6102AUS thru 1N6137AUS	Surface Mount (US) part ⁽²⁾

Notes:

1. Axial parts available in bulk or tape and reel. Please consult factory for quantities
2. Surface mount parts available in trays or tape and reel. Please consult factory for quantities