DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

1N6103AP-1N6137AP

Bidirectional Transient Suppressors
DO-41 plastic

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:	-55 to +175°C
Peak pulse power @ 25°C (10/1000µs)	500W
Impulse repetition rate (duty factor):	0.01%
Solder temperatures:	260°C for 10 s (maximum)
Steady state power @ T_L = 75°C @ 3/8” lead length from body**:**	2.5W for 1N6103AP to 1N6137AP
Steady state power @ T_A = 25°C:	2.0W for 1N6103AP to 1N6137AP

ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted

Part Number	Breakdown Voltage $V_{(BR)}$ Min	Test Current I_T	Working Peak Voltage V_{WM}	Max Leakage Current I_D	Max Clamping Voltage $V_{C(MAX)}$	Max Peak Pulse Current I_P	Max. Temp. Coef. of $V_{(BR)}$
500W	**Vdc**	**mAdc**	**Vdc**	**µAdc**	**V(pk)**	**A(pk)**	**%/°C**
1N6103AP	7.13	175	5.7	50	11.2	44.6	.06
1N6104AP	7.79	150	6.2	20	12.1	41.3	.06
1N6105AP	8.65	150	6.9	20	13.4	37.3	.06
1N6106AP	9.50	125	7.6	20	14.5	34.5	.07
1N6107AP	10.45	125	8.4	20	15.6	32.0	.07
1N6108AP	11.40	100	9.1	20	16.9	29.6	.07
1N6109AP	12.35	100	9.9	20	18.2	27.5	.08
1N6110AP	14.25	75	11.4	20	21.0	23.8	.08
1N6111AP	15.20	75	12.2	20	22.3	22.4	.08
1N6112AP	17.10	65	13.7	1	25.1	19.9	.085
1N6113AP	19.0	65	15.2	1	27.7	18.0	.085
1N6114AP	20.9	50	16.7	1	30.5	16.4	.085
1N6115AP	22.8	50	18.2	1	33.3	15.0	.09
1N6116AP	25.7	50	20.6	1	37.4	13.4	.09
1N6117AP	28.5	40	22.8	1	41.6	12.0	.09
1N6118AP	31.4	40	25.1	1	45.7	10.9	.095
1N6119AP	34.2	30	27.4	1	49.9	10.0	.095
1N6120AP	37.1	30	29.7	1	53.6	9.3	.095
1N6121AP	40.9	30	32.7	1	59.1	8.5	.095
1N6122AP	44.7	25	35.8	1	64.6	7.7	.095
1N6123AP	48.5	25	38.8	1	70.1	7.1	.095
1N6124AP	53.2	20	42.6	1	77.0	6.5	.095

DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

1N6103AP-1N6137AP

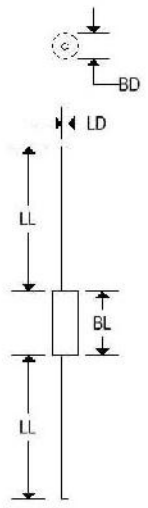
Bidirectional Transient Suppressors
DO-41 plastic

ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted

Part Number	Breakdown Voltage $V_{(BR)}$ Min	Test Current I_T	Working Peak Voltage V_{WM}	Max Leakage Current I_D	Max Clamping Voltage $V_{C(MAX)}$	Max Peak Pulse Current I_P	Max. Temp. Coef. of $V_{(BR)}$
500W	**Vdc**	**mAdc**	**Vdc**	**µAdc**	**V(pk)**	**A(pk)**	**%/°C**
1N6125AP	58.9	20	47.1	1	85.3	5.9	.100
1N6126AP	64.6	20	51.7	1	97.1	5.1	.100
1N6127AP	71.3	20	56.0	1	103.1	4.8	.100
1N6128AP	77.9	15	62.2	1	112.8	4.4	.100
1N6129AP	86.5	15	69.2	1	125.1	4.0	.100
1N6130AP	95.0	12	76.0	1	137.6	3.6	.100
1N6131AP	104.5	12	86.6	1	151.3	3.3	.100
1N6132AP	114.0	10	91.2	1	165.1	3.0	.100
1N6133AP	123.5	10	98.8	1	178.8	2.8	.105
1N6134AP	142.5	8	114.0	1	206.3	2.4	.105
1N6135AP	152.0	8	121.6	1	218.4	2.3	.105
1N6136AP	171.0	5	136.8	1	245.7	2.0	.110
1N6137AP	190.0	5	152.0	1	273.0	1.8	.110

MECHANICAL CHARACTERISTICS

Case:	DO-41 plastic
Marking:	Alpha-Numeric
Polarity:	No marking (bidirectional device)



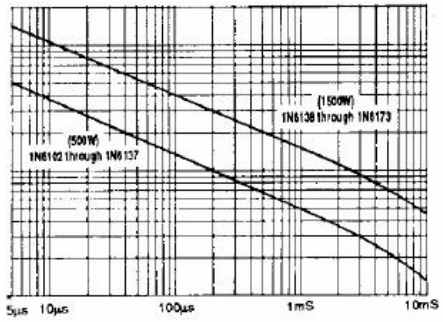
	DO-41			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.107	-	2.720
BL		0.205		5.207
LD	0.028	0.034	0.711	0.864
LL	1.000	-	25.400	-

DIGITRON™ Semiconductors

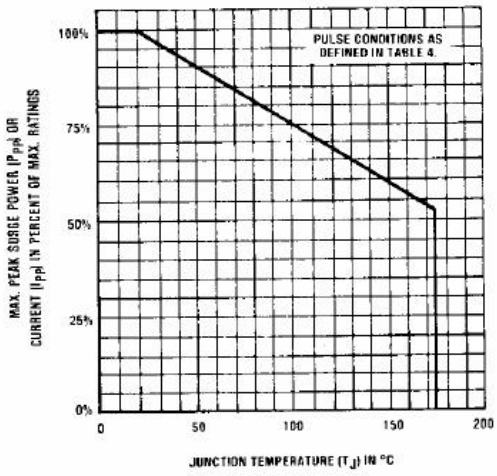
High-reliability discrete products and engineering services since 1977

1N6103AP-1N6137AP

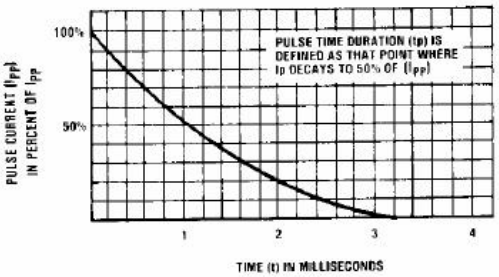
Bidirectional Transient Suppressors
DO-41 plastic



PEAK SURGE POWER vs. PULSE TIME



PULSE DERATING CURVE



PULSE WAVE FORM