THE DATASHEET OF

NTE4906

ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE4902 thru NTE4998
Surge Clamping, Transient Overvoltage Suppressor
Unidirectional

Description:

The NTE4900 series of silicon Transient Suppressors designed to protect voltage sensitive components from high energy voltage transients. Transient over voltage suppressor devices have become very important as a consequence of their high surge capability, extremely fast response time, and low incremental surge resistance (Rs).

Application:

The NTE4900 series has a peak pulse power rating of 1500 watts for one millisecond can protect integrated circuits, hybrids, CMOS, MOS, and other voltage sensitive components in a broad range of applications such as telecommunications, power supplies, computers, automotive, industrial, and medical equipment.

Absolute Maximum Ratings:

Peak Pulse Power Dissipation (T_A = +25°C) 1500W
$t_{clamping}$ (0 volts to BV Min) . . . . . < 1 x 10–12 sec
Operating and Storage Temperature . . . . . –65°C to +175°C
Forward Surge Rating 200 Amps, ... 1/20 Second at +25°C
Steady State Power Dissipation . . . . . 5.0 W @ T1 = +25°C

Electrical Characteristics:

Clamping Factor: 1.33 @ full rated power
1.20 @ 50% rated power

The clamping factor is defined as: The ratio of the actual V_C (Clamping voltage) to the actual BV (Breakdown Voltage) as measured on a specific device.

NTE Type Number	Diagram Number	Maximum Reverse Stand Off Voltage (Volts)	Breakdown Voltage @ I_T (Volts)				Maximum Ratings			Temperature Coefficient of BV%/°C
							Clamping Voltage @ I_{pp} (1msec) (Volts)	Reverse Leakage Current @ V_R (μA)	Peak Pulse Current (Amps)	
		V_R	V_{BR}				V_C	I_R	I_{pp}	
			Min	Typ	Max	I_T mA				
4902	183	5.80	6.45	6.80	7.14	10.0	10.5	1000.0	143.00	0.057
4904	183	6.40	7.13	7.50	7.88	10.0	11.3	500.0	132.00	0.061
4906	183	7.02	7.79	8.20	8.61	10.0	12.1	200.0	124.00	0.065
4910	183	8.55	9.50	10.00	10.50	1.0	14.5	10.0	103.00	0.073
4914	183	10.20	11.40	12.00	12.60	1.0	16.7	5.0	90.00	0.078
4918	183	11.10	12.40	13.00	13.70	1.0	18.2	5.0	82.00	0.081

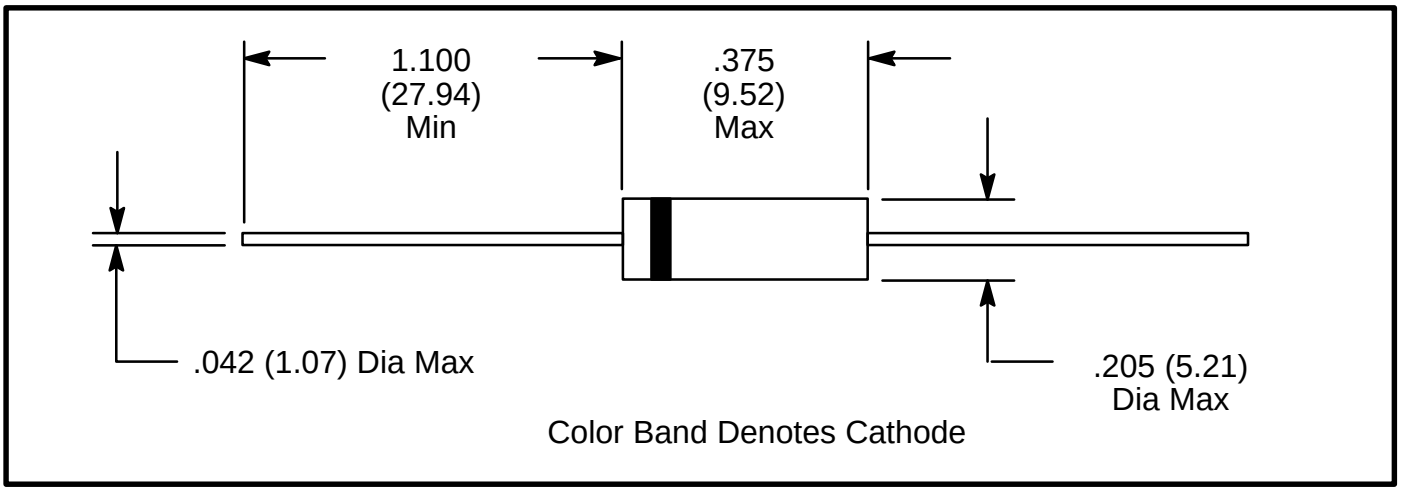
Electrical Characteristics (Cont'd):

Clamping Factor: 1.33 @ full rated power
1.20 @ 50% rated power

The clamping factor is defined as: The ratio of the actual V_C (Clamping voltage) to the actual BV (Breakdown Voltage) as measured on a specific device.

NTE Type Number	Diagram Number	Maximum Reverse Stand Off Voltage (Volts)	Breakdown Voltage @ I_T (Volts)				Maximum Ratings			Temperature Coefficient of BV%/°C
							Clamping Voltage @ I_{pp} (1msec) (Volts)	Reverse Leakage Current @ V_R (μA)	Peak Pulse Current (Amps)	
		V_R	V_{BR}				V_C	I_R	I_{pp}	
			Min	Typ	Max	I_T mA				
4920	183	12.80	14.30	15.00	15.80	1.0	21.2	5.0	71.00	0.084
4922	183	13.60	15.20	16.00	16.80	1.0	22.5	5.0	67.00	0.086
4926	183	15.30	17.10	18.00	18.90	1.0	25.2	5.0	59.50	0.088
4928	183	17.10	19.00	20.00	21.00	1.0	27.7	5.0	54.00	0.090
4932	183	20.50	22.80	24.00	25.20	1.0	33.2	5.0	45.00	0.094
4934	183	23.10	25.70	27.05	28.40	1.0	37.5	5.0	40.00	0.096
4936	183	25.60	28.50	30.00	31.50	1.0	41.4	5.0	36.00	0.097
4938	183	28.20	31.40	33.00	34.70	1.0	45.7	5.0	33.00	0.098
4940	183	30.80	34.20	36.00	37.80	1.0	49.9	5.0	30.00	0.099
4942	183	33.30	37.10	39.00	41.00	1.0	53.9	5.0	28.00	0.100
4944	183	36.80	40.90	43.00	45.20	1.0	59.3	5.0	25.30	0.101
4946	183	40.20	44.70	47.00	49.40	1.0	64.8	5.0	23.20	0.101
4950	183	43.60	48.50	51.05	53.60	1.0	70.1	5.0	21.40	0.102
4952	183	47.80	53.20	56.00	58.80	1.0	77.0	5.0	19.50	0.103
4954	183	53.00	58.90	62.00	65.10	1.0	85.0	5.0	17.70	0.104
4958	183	58.10	64.60	68.00	71.40	1.0	92.0	5.0	16.30	0.104
4960	183	64.10	71.30	75.00	78.80	1.0	103.0	5.0	14.60	0.105
4962	183	70.10	77.90	82.00	86.10	1.0	113.0	5.0	13.30	0.105
4964	183	77.80	86.50	91.00	95.50	1.0	125.0	5.0	12.00	0.106
4966	183	85.50	95.00	100.00	105.00	1.0	137.0	5.0	11.00	0.106
4968	183	94.00	105.00	110.00	116.00	1.0	152.0	5.0	9.90	0.107
4970	183	102.00	114.00	120.00	126.00	1.0	165.0	5.0	9.10	0.107
4972	183	111.00	124.00	130.00	137.00	1.0	179.0	5.0	8.40	0.107
4974	183	121.00	135.00	150.00	165.00	1.0	215.0	5.0	7.00	0.108
4976	183	136.00	152.00	160.00	168.00	1.0	219.0	5.0	6.80	0.108
4978	183	145.00	162.00	170.00	179.00	1.0	234.0	5.0	6.40	0.108
4980	183	154.00	171.00	180.00	189.00	1.0	246.0	5.0	6.10	0.108
4982	183	185.00	209.00	220.00	231.00	1.0	328.0	5.0	4.60	0.109
4984	183	214.00	237.00	250.00	263.00	1.0	344.0	5.0	5.00	0.109
4988	183	171.00	190.00	200.00	210.00	1.0	274.0	5.0	5.50	0.108
4990	183	256.00	285.00	300.00	315.00	1.0	414.0	5.0	3.58	0.110
4992	183	273.00	304.00	320.00	336.00	1.0	438.0	5.0	4.50	0.110
4994	183	300.00	333.00	350.00	368.00	1.0	482.0	5.0	3.08	0.110
4996	183	342.00	380.00	400.00	420.00	1.0	548.0	5.0	2.78	0.110
4998	183	376.00	418.00	440.00	462.00	1.0	603.0	5.0	3.50	0.110

Note 1. Normal selection of a zener transient over voltage suppressor is by rated stand–off voltage (V_{WM}) and should be equal or greater than DC or continuous peak operating voltage.



Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- View NTE4906 on WIN SOURCE
- NTE Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- Global Sourcing Solution
- Obsolete Management
- Cost Control Management
- Shortage Management
- Alternative Solution
- Excess Inventory Management