



## NTE5061A thru NTE5105A (Includes NTE134A thru NTE151A) Zener Diode, 1 Watt ±5% Tolerance

**Features:**

- Zener Voltage 110V to 200V
- Low Cost
- Low Zener Impedance
- Excellent Clamping
- Easily Cleaned with Freon, Alcohol, Chloroethene, and Similar Solvents

**Maximum Ratings and Electrical Characteristics:** ( $T_C = +25^\circ\text{C}$ , unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load, for capacitive load, derate current by 20%)

NTE Type Number	Nominal Zener Voltage $V_z @ I_{zt}$	Zener Test Current ( $I_{zt}$ )	Maximum Dynamic Impedance			Maximum Leakage Current $I_R @ V_R$		Max DC Zener Current ( $I_{zm}$ )	Max Forward Voltage $V_F @ I_F$		
			$Z_{zt} @ I_{zt}$	$Z_{zk} @ I_{zk}$		$\mu\text{A}$	Volts		mA	Volts	mA
			$\Omega$	$\Omega$	mA	$\mu\text{A}$	Volts				
NTE5061A	2.4	20.0	30	1200	0.25	100	1.0	–	1.1	200	
NTE5062A	2.5	20.0	30	1250	0.25	100	1.0	–	1.1	200	
NTE5063A	2.7	20.0	30	1300	0.25	75	1.0	–	1.1	200	
NTE5064A	2.8	20.0	30	1400	0.25	75	1.0	–	1.1	200	
NTE5065A	3.0	20.0	30	1600	0.25	50	1.0	–	1.1	200	
NTE5066A	3.3	76.0	10	400	1.0	100	1.0	–	1.2	200	
NTE134A	3.6	69.0	10	400	1.0	100	1.0	–	1.2	200	
NTE5067A	3.9	64.0	9	400	1.0	50	1.0	–	1.2	200	
NTE5068A	4.3	58.0	9	400	1.0	10	1.0	–	1.2	200	
NTE5069A	4.7	53.0	8	500	1.0	10	1.0	–	1.2	200	
NTE135A	5.1	49.0	7	550	1.0	10	1.0	–	1.2	200	
NTE136A	5.6	45.0	5	600	1.0	10	2.0	–	1.2	200	
NTE5070A	6.0	43.0	3.5	650	1.0	10	2.5	–	1.2	200	
NTE137A	6.2	41.0	2	700	1.0	10	3.0	–	1.2	200	
NTE5071A	6.8	37.0	3.5	700	1.0	10	4.0	–	1.2	200	
NTE138A	7.5	34.0	4.0	700	0.5	10	5.0	–	1.2	200	
NTE5072A	8.2	31.0	4.5	700	0.5	10	6.0	–	1.2	200	

**Maximum Ratings and Electrical Characteristics (Cont'd):** ( $T_C = +25^\circ\text{C}$ , unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load, for capacitive load, derate current by 20%)

NTE Type Number	Nominal Zener Voltage $V_z @ I_{zt}$	Zener Test Current ( $I_{zt}$ )	Maximum Dynamic Impedance			Maximum Leakage Current $I_R @ V_R$		Max DC Zener Current ( $I_{zm}$ )	Max Forward Voltage $V_F @ I_F$	
			$Z_{zt} @ I_{zt}$	$Z_{zk} @ I_{zk}$		$\mu\text{A}$	Volts		Volts	mA
	Volts	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	Volts	mA	Volts	mA
NTE5073A	8.7	29.5	4.75	700	0.5	10	6.5	–	1.2	200
NTE139A	9.1	28.0	5.0	700	0.5	10	7.0	–	1.2	200
NTE140A	10.0	25.0	7.0	700	0.25	10	7.6	–	1.2	200
NTE5074A	11.0	23.0	8.0	700	0.25	5	8.4	–	1.2	200
NTE141A	11.5	22.0	8.5	700	0.25	5	8.7	–	1.2	200
NTE142A	12.0	21.0	9.0	700	0.25	5	9.1	–	1.2	200
NTE143A	13	19.0	10	700	0.25	5	9.9	–	1.2	200
NTE144A	14	18.0	12	700	0.25	5	10.7	–	1.2	200
NTE145A	15	17.0	14	700	0.25	5	11.4	–	1.2	200
NTE5075A	16	15.5	16	700	0.25	5	12.2	–	1.2	200
NTE5076A	17	14.75	18	725	0.25	5	13.0	–	1.2	200
NTE5077A	18	14.0	20	750	0.25	5	13.7	–	1.2	200
NTE5078A	19	13.25	21	750	0.25	5	14.5	–	1.2	200
NTE5079A	20	12.5	22	750	0.25	5	15.2	–	1.2	200
NTE5080A	22	11.5	23	750	0.25	5	16.7	–	1.2	200
NTE5081A	24	10.5	25	750	0.25	5	18.2	–	1.2	200
NTE5082A	25	10.0	30	750	0.25	5	19.4	–	1.2	200
NTE146A	27	9.5	35	750	0.25	5	20.6	–	1.2	200
NTE5083A	28	9.0	37	775	0.25	5	21.7	–	1.2	200
NTE5084A	30	8.5	40	1000	0.25	5	22.8	–	1.2	200
NTE147A	33	7.5	45	1000	0.25	5	25.1	–	1.2	200
NTE5085A	36	7.0	50	1000	0.25	5	27.4	–	1.2	200
NTE5086A	39	6.5	60	1000	0.25	5	29.7	–	1.2	200
NTE5087A	43	6.0	70	1500	0.25	5	32.7	–	1.2	200
NTE5088A	47	5.5	80	1500	0.25	5	35.8	–	1.2	200
NTE5089A	51	5.0	95	1500	0.25	5	38.8	–	1.2	200
NTE148A	55	4.75	103	1750	0.25	5	40.7	–	1.2	200
NTE5090A	56	4.5	110	2000	0.25	5	42.6	–	1.2	200
NTE5091A	60	4.75	118	2000	0.25	5	44.9	–	1.2	200
NTE149A	62	4.0	125	2000	0.25	5	47.1	–	1.2	200
NTE5092A	68	3.7	150	2000	0.25	5	51.7	–	1.2	200
NTE5093A	75	3.3	175	2000	0.25	5	56.0	–	1.2	200
NTE150A	82	3.0	200	3000	0.25	5	62.2	–	1.2	200

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NTE Type Number	Nominal Zener Voltage $V_Z @ I_{ZT}$	Zener Test Current ( $I_{ZT}$ )	Maximum Dynamic Impedance			Maximum Leakage Current $I_R @ V_R$		Max DC Zener Current ( $I_{ZM}$ )	Max Forward Voltage $V_F @ I_F$	
			$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$\mu\text{A}$	Volts		Volts	mA
	Volts	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	Volts	mA	Volts	mA
NTE5094A	87	2.9	225	3000	0.25	5	65.7	–	1.2	200
NTE5095A	91	2.8	250	3000	0.25	5	69.2	–	1.2	200
NTE5096A	100	2.5	350	3000	0.25	5	76.0	–	1.2	200
NTE151A	110	2.3	600	5000	0.25	0.5	80	9.1	1.0	1A
NTE5097A	120	2.1	700	5000	0.25	0.5	90	8.3	1.0	1A
NTE5098A	130	1.9	800	5000	0.25	0.5	95	7.7	1.0	1A
NTE5099A	140	1.8	900	5000	0.25	0.5	105	7.1	1.0	1A
NTE5100A	150	1.7	1000	5000	0.25	0.5	110	6.6	1.0	1A
NTE5101A	160	1.6	1100	5000	0.25	0.5	120	6.3	1.0	1A
NTE5102A	170	1.5	1200	5000	0.25	0.5	130	5.9	1.0	1A
NTE5103A	180	1.4	1300	5000	0.25	0.5	140	5.6	1.0	1A
NTE5104A	190	1.3	1400	5000	0.25	0.5	150	5.3	1.0	1A
NTE5105A	200	1.3	1500	5000	0.25	0.5	160	5.0	1.0	1A

