



ELECTRONICS, INC.

44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748-5089

NTE5010T1 thru NTE5021T1 Zener Diode, 500mW ±1% Tolerance

Features:

- Zener Voltage 5.1V to 12V
- Constructed with an Oxide Passivated All Diffused Die
- DO35 Type Axial Lead Package

Absolute Maximum Ratings:

Forward Voltage ($I_F = 100\text{mA}$, $T_L = +30^\circ\text{C}$, Lead Length = 3/8"), V_F 1.5V
 DC Power Dissipation ($T_L \leq +50^\circ\text{C}$, Lead length = 3/8"), P_D 500mW
 Derate Above 50°C 3.33mW/ $^\circ\text{C}$
 Operating Temperature Range, T_{opr} -65°C to $+200^\circ\text{C}$
 Storage Temperature Range, T_{stg} -65°C to $+200^\circ\text{C}$

Electrical Characteristics: ($T_L = +30^\circ\text{C}$, Lead Length = 3/8" unless otherwise specified)

NTE Type Number	Nom Zener Voltage (Note 1) $V_Z @ I_{ZT}$ Volts	Zener Test Current (I_{ZT}) mA	Max DC Zener Current (Note 2) (I_{ZM}) mA	Max Zener Impedance (Note 3)		Typical Temperature Coefficient α_{VZ} %/ $^\circ\text{C}$	Max Leakage Current $I_R @ V_R$	
				$Z_{ZT} @ I_{ZT}$ Ohms	$Z_{ZK} @ 0.25\text{mA} (I_{ZK})$ Ohms		μA	Volts
5010T1	5.1	5	98	50	2050	+0.025	2.0	2.0
5011T1	5.6	5	89	25	1800	+0.035	2.0	3.0
5013T1	6.2	5	81	10	1300	+0.040	1.0	4.0
5019T1	10.0	5	50	15	600	+0.065	0.1	8.0
5021T1	12.0	5	42	22	600	+0.073	0.1	9.1

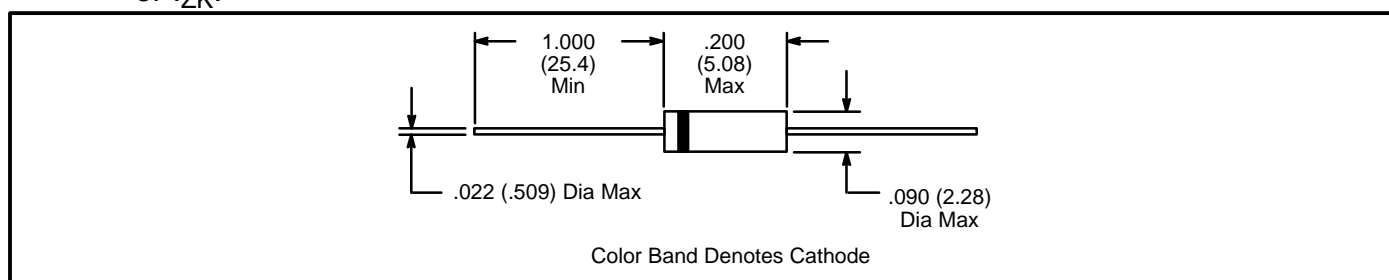
Note 1. Voltage measurement to be performed 20 seconds after application of the DC test current.

Note 2. The maximum zener current (I_{ZM}) shown is for the nominal voltages. The following formula can be used to determine the worst case current for any tolerance device:

$$I_{ZM} = \frac{P}{V_{ZM}}$$

Where V_{ZM} is the high end of the tolerance specified and P is the rated power of the device.

Note 3. Zener impedance is derived from the 1kHz AC voltage which results when an AC current having an RMS value equal to 10% of DC zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Zener Diodes](#) category:

Click to view products by [NTE manufacturer](#):

Other Similar products are found below :

[MMSZ5245BS-7-F](#) [RKZ13B2KG#P1](#) [RKZ5.6B2KJ#R1](#) [EDZTE6113B](#) [EDZTE6116B](#) [EDZTE616.8B](#) [1N747A](#) [1N966B](#) [NTE5116A](#)
[NTE5121A](#) [NTE5139A](#) [NTE5147A](#) [NTE5152A](#) [NTE5156A](#) [NTE5164A](#) [JANS1N4974US](#) [SMAJ4764A-TP](#) [RKZ5.1BKU#P6](#)
[3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#) [3SMBJ5920B-TP](#) [3SMBJ5925B-TP](#) [TDZTR24](#) [441774C](#) [MMSZ4678-TP](#) [BZG04-36](#) [BZG05C9V1-](#)
[HE3-TR](#) [HZM30NBTR-E](#) [UDZTE-175.1B](#) [3SMAJ5945B-TP](#) [3SMAJ5947B-TP](#) [3SMBJ5941B-TP](#) [DL4746A-TP](#) [RKZ18B2KK#R1](#)
[RKZ10B2KL#R1](#) [RKZ6.8B2KL#R1](#) [RKZ8.2B2KL#R1](#) [DZ2S240M0L](#) [SMAZ27-TP](#) [SMBZ5920B-E3/52](#) [ZMM3.0](#) [RD16UM-T1-A](#) [RD39S-](#)
[T1-A](#) [RD9.1S-T1-A](#) [RD10S-T1-A](#) [RD20S-T1-A](#) [RD2.2S-T1-A](#) [RD2.7UM-T1-A](#) [HZM24NB1TL-E](#) [HZM2.7NB2TL-E](#)