



ELECTRONICS, INC.  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089  
<http://www.nteinc.com>

## NTE3076 0.560 Inch, Seven Segment, 1 Digit <sup>w</sup>/Overflow and $\pm$ , Common Anode, RHDP

**Features:**

- High Performance GaAsP
- Large, easy to read digits
- Fast switching – excellent for multiplexing
- Low power consumption
- Solid state reliability – long operation life
- Rugged plastic construction
- Directly compatible with integrated circuits
- High brightness with high contrast
- Low forward voltage
- Wide viewing angle 150°

**Applications:**

- Digital readout displays
- Instrument panels
- Point of sale equipment
- Digital clocks
- Tv and radios

**Absolute Raximum Ratings:**

Power Dissipation at +25°C ambient .....	840mW
Derate linearly from +25°C .....	-12.0mW/°C
Continuous Forward Current	
Total .....	420mA
Per Segment .....	30mA
Decimial Point .....	30mA
Reverse Voltage	
Per Segment .....	6V
Decimal Point .....	6V
Soldersing Time at 260°C (Note 1,2) .....	5 sec.
Operating Temperature Range .....	-40° to +85°C
Storage Temperature Range .....	-40° to +85°C
Thermal Resistance Junction to Free Air, $\Phi_{JA}$ .....	160°C/W

Note 1. Leads of the device immersed to 1/16 inch from the body. Maximum device surface temperature is 140°C.

Note 2. For flux removal, Freon TF, Freon TE, Isoproponal or water may be used up to their boiling points.

**Operating Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity, Digit Average	$I_F = 10\text{mA}$ (Note 3,4)	125	420	-	$\mu\text{cd}$
Peak Emission Wavelength		-	650	-	nm
Spectral Line Half Width		-	20	-	nm
Forward Voltage Segment	$I_F = 20\text{mA}$	-	-	2.0	V
Decimal Point		-	-	2.0	V
Dynamic Resistance Segment	$I_{pk} = 100\text{mA}$	-	2	-	$\Omega$
Decimal Point		-	2	-	$\Omega$
Capacitance Segment	$V = 0$	-	35	80	pF
Decimal Point		-	35	80	pF
Reverse Current Segment	$V_R = 5.0\text{V}$	-	-	100	$\mu\text{A}$
Decimal Point		-	-	100	$\mu\text{A}$
Segment C or D of "+"		-	-	100	$\mu\text{A}$

Note 3. The digit average Luminous Intensity is obtained by summing the Luminous Intensity of each segment and dividing by the total number of segments. Intensity will not vary more than  $\pm 33\%$  between all segments within a digit.

Note 4. The decimal point is designed to have the same surface brightness as the segments, therefore, the Luminous Intensity of the decimal point is .3 times the Luminous Intensity of the segments, since the area of the decimal point is .3 times the area of the average points.



