



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

## NTE30030 thru NTE30036, NTE30044 Super Bright LED Indicators 3mm (T-1) Thru-Hole Type Package

**Features:**

- All Plastic Mold Type w/Water Clear Lens:
  - NTE30030 (Yellow Green, AlGaP/GaAs)
  - NTE30031 (Pure Green, GaInN/GaN)
  - NTE30032 (Yellow, AlInGaP/GaAs)
  - NTE30033 (Orange, AlInGaP/GaAs)
  - NTE30034 (Deep Red, GaAlAs/GaAlAs)
  - NTE30035 (Amber, AlGaP/GaAs)
  - NTE30036 (Blue, GaInN/GaN)
  - NTE30044 (White, GaInN/GaN)

**Absolute Maximum Ratings:** (T<sub>A</sub> = +25°C unless otherwise specified)

Reverse Voltage, V <sub>R</sub> .....	5V
Continuous Forward Current, I <sub>F</sub>	
NTE30030, NTE30032, NTE30033, NTE30034, NTE30035 .....	25mA
NTE30031, NTE30036, NTE30044 .....	30mA
Peak Forward Current (1.10 Duty Cycle, 0.1ms Pulse Width), I <sub>FM</sub>	
NTE30030, NTE30032, NTE30033, NTE30035 .....	50mA
NTE30031, NTE30034, NTE30036, NTE30044 .....	100mA
Power Dissipation, P <sub>D</sub>	
NTE30030, NTE30032, NTE30033, NTE30034, NTE30035 .....	100mW
NTE30031, NTE30036, NTE30044 .....	120mW
Operating Temperature Range, T <sub>opr</sub> .....	-25°C to +85°C
NTE30034 <b>Only</b> .....	-20°C to +80°C
NTE30036 <b>Only</b> .....	-40°C to +85°C
Storage Temperature Range, T <sub>stg</sub> .....	-40°C to +100°C
NTE30034 <b>Only</b> .....	-30°C to +100°C
Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), T <sub>L</sub> .....	+240°C
NTE30034 <b>Only</b> .....	+260°C

**Electro-Optical Characteristics:** (T<sub>A</sub> = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20mA	-	2.2	2.4	V
NTE30030						
NTE30031						
NTE30032, NTE30035						
NTE30033						
NTE30034						
NTE30036						
NTE30044						

Rev. 6-21



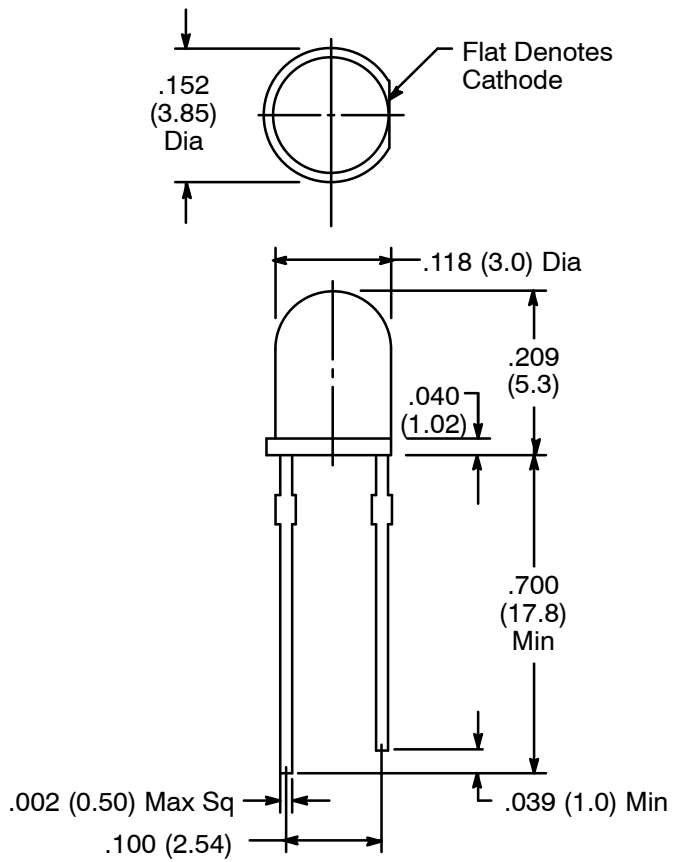
**Electro-Optical Characteristics (Cont'd):** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Current All Devices	$I_R$	$V_R = 5V$	-	-	10	$\mu\text{A}$
NTE30031, NTE30036		$V_R = 4V$	-	-	60	$\mu\text{A}$
NTE30044 <b>Only</b>		$V_R = 5V$	-	-	50	$\mu\text{A}$
Luminous Intensity NTE30030	$I_V$	$I_F = 20\text{mA}$ , Note 1	-	1600	-	mcd
NTE30031			-	5000	-	mcd
NTE30032, NTE30033, NTE30035			-	2500	-	mcd
NTE30034			1500	-	2500	mcd
NTE30036			2000	3000	-	mcd
NTE30044			6000	7000	-	mcd
Peak Emission Wave Length NTE30030	$\lambda_P$	$I_F = 20\text{mA}$	-	575	-	nm
NTE30031			-	523	-	nm
NTE30032			-	592	-	nm
NTE30033			-	620	-	nm
NTE30034			655	660	665	nm
NTE30035			-	607	-	nm
NTE30036			-	468	-	nm
NTE30044		CIE Coordinates, Typ	X: 0.28; Y: 0.30			
Dominant Wave Length (NTE30036 <b>Only</b> )	$\lambda_d(\text{HUE})$	$I_F = 20\text{mA}$ , Note 2	465	470	475	nm
Spectral Line Half Width NTE30030, NTE30033, NTE30035	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
NTE30031			-	45	-	nm
NTE30032			-	25	-	nm
NTE30036			-	20	-	nm
NTE30044			-	22	-	nm
Viewing Angle NTE30030, NTE30031	$2\theta^{1/2}$	$I_F = 20\text{mA}$	-	14	-	deg.
NTE30032, NTE30033, NTE30035			-	10	-	deg.
NTE30034			-	30	-	deg.
NTE30036			-	10	-	deg.
NTE30044			-	30	-	deg.
Optic Rise Time (NTE30036 <b>Only</b> )	$\tau$	$I_F = 20\text{mA}$	-	30	-	ns

Note 1. Luminous intensity is measured with an Exeltron 2001.

Note 2. The dominant wavelength,  $\lambda_d$ , is derived from the CIE Chromaticity Diagram and represents the color of the device.

**NTE30030 thru NTE30036**



**NTE30044, NTE30036**

