



ELECTRONICS, INC.  
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<http://www.nteinc.com>

## NTE30030 thru NTE30036, NTE30044 Super Bright LED Indicators, 3mm

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

Reverse Voltage, $V_R$ .....	5V
Continuous Forward Current, $I_F$	
NTE30030, NTE30032, NTE30033, NTE30034, NTE30035 .....	25mA
NTE30031, NTE30036, NTE30044 .....	30mA
Peak Forward Current (1.10 Duty Cycle, 0.1ms Pulse Width), $I_{FM}$	
NTE30030, NTE30032, NTE30033, NTE30034, NTE30035 .....	50mA
NTE30031, NTE30036, NTE30044 .....	100mA
Power Dissipation, $P_D$	
NTE30030, NTE30032, NTE30033, NTE30035 .....	100mW
NTE30034 .....	110mW
NTE30031, NTE30036, NTE30044 .....	120mW
Operating Temperature Range, $T_{opr}$ .....	$-25^\circ\text{C}$ to $+85^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-40^\circ\text{C}$ to $+100^\circ\text{C}$
Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), $T_L$ .....	$+240^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F = 20\text{mA}$				
NTE30030			-	2.2	2.4	V
NTE30031			-	3.5	4.0	V
NTE30032, NTE30035			-	2.0	2.4	V
NTE30033			-	2.0	2.6	V
NTE30034			-	1.86	2.5	V
NTE30036			-	3.5	4.0	V
NTE30044			3.0	3.3	4.0	V

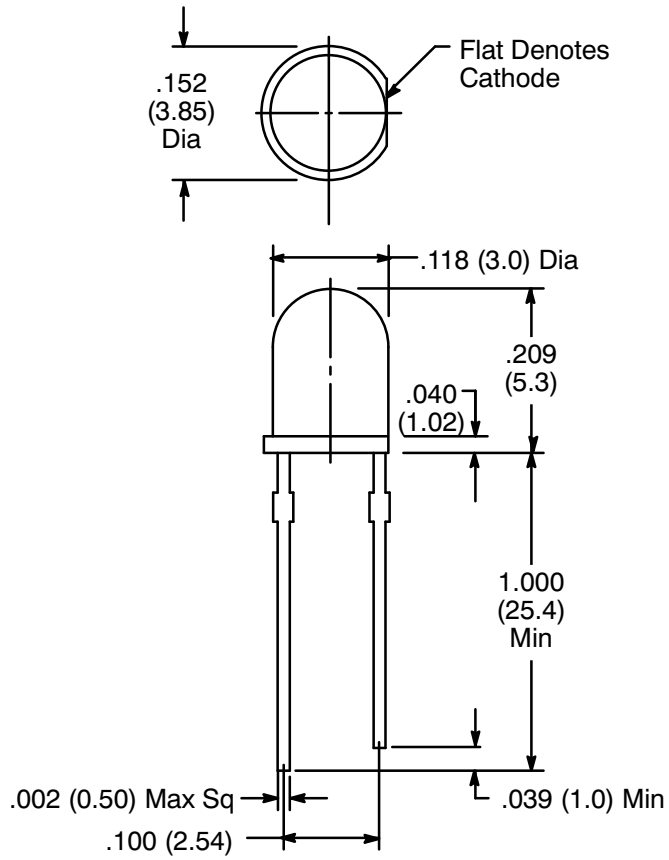
**Electro-Optical Characteristics (Cont'd):** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

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			-	2000	-	mcd
NTE30036			1500	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			-	660	-	nm
NTE30035			-	607	-	nm
NTE30036			-	468	-	nm
NTE30044		CIE Coordinates, Typ	X: 0.30; Y: 0.31			
Dominate 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, NTE30034, NTE30035	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
NTE30031			-	45	-	nm
NTE30032			-	25	-	nm
NTE30036			-	35	-	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			-	19	-	deg.
NTE30036			-	15	-	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.

**NTE30030 thru NTE30036**



**NTE30044**

