ELECTRONICS, INC.
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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, AlIGaP/GaAs)
  - NTE30031 (Pure Green, GaInN/GaN)
  - NTE30032 (Yellow, AlInGaP/GaAs)
  - NTE30033 (Orange, AlInGaP/GaAs)
  - NTE30034 (Deep Red, GaAlAs/GaAlAs)
  - NTE30035 (Amber, AlIGaP/GaAs)
  - NTE30036 (Blue, GaInN/GaN)
  - NTE30044 (White, GaInN/GaN)

Absolute Maximum Ratings: (T_A = +25°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, NTE30035 . . . . . 50mA
NTE30031, NTE30034, NTE30036, NTE30044 . . . . . 100mA
Power Dissipation, P_D
NTE30030, NTE30032, NTE30033, NTE30034, NTE30035 . . . . . 100mW
NTE30031, NTE30036, NTE30044 . . . . . 120mW
Operating Temperature Range, T_{opr} . . . . . –25°C to +85°C
NTE30034 **Only** . . . . . –20°C to +80°C
NTE30036 **Only** . . . . . –40°C to +85°C
Storage Temperature Range, T_{stg} . . . . . –40°C to +100°C
NTE30034 **Only** . . . . . –30°C to +100°C
Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), T_L . . . . . +240°C
NTE30034 **Only** . . . . . +260°C

Electro–Optical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage NTE30030	V_F	I_F = 20mA	–	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			2.0	–	2.2	V
NTE30036			2.7	3.3	4.0	V
NTE30044			3.0	3.3	4.0	V

Rev. 6–21

RoHS

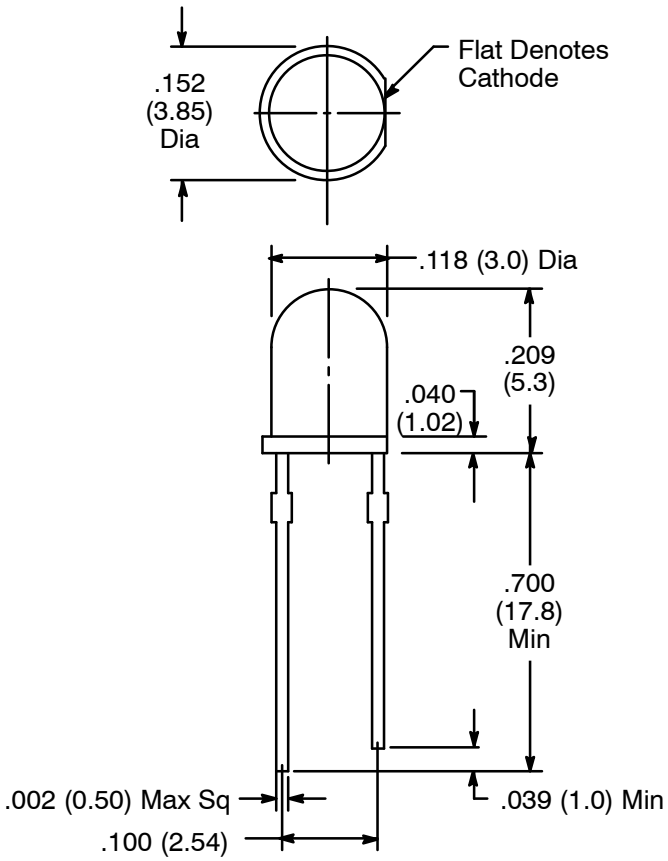
Electro−Optical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Current						
All Devices	I_R	V_R = 5V	–	–	10	μA
NTE30031, NTE30036		V_R = 4V	–	–	60	μA
NTE30044 **Only**		V_R = 5V	–	–	50	μA
Luminous Intensity						
NTE30030	I_V	I_F = 20mA, 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	λ_P	I_F = 20mA	–	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			
Dominate Wave Length (NTE30036 **Only**)	λ_d(HUE)	I_F = 20mA, Note 2	465	470	475	nm
Spectral Line Half Width						
NTE30030, NTE30033, NTE30035	$\Delta\lambda$	I_F = 20mA	–	20	–	nm
NTE30031			–	45	–	nm
NTE30032			–	25	–	nm
NTE30036			–	20	–	nm
NTE30044			–	22	–	nm
Viewing Angle						
NTE30030, NTE30031	$2\theta^1/_2$	I_F = 20mA	–	14	–	deg.
NTE30032, NTE30033, NTE30035			–	10	–	deg.
NTE30034			–	30	–	deg.
NTE30036			–	10	–	deg.
NTE30044			–	30	–	deg.
Optic Rise Time (NTE30036 **Only**)	τ	I_F = 20mA	–	30	–	ns

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

Note 2. The dominate wavelength, λ_d, is derived from the CIE Chromaticity Diagram and represents the color of the device.

NTE30030 thru NTE30036



NTE30044, NTE30036