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# 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°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°C to +85°C

Storage Temperature Range, $T_{stg}$ . . . . . –40°C to +100°C

Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), $T_L$ . . . . . +240°C

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

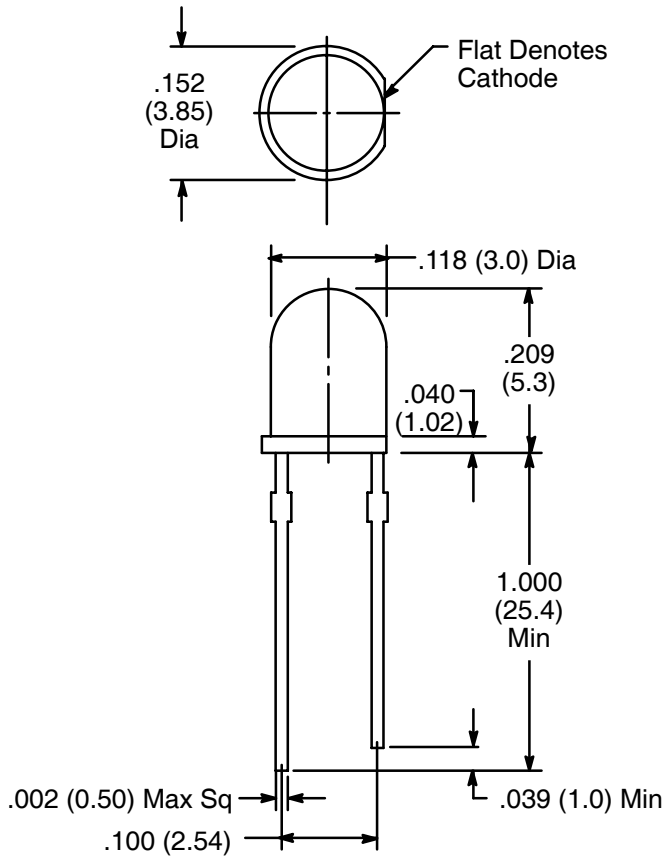
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Forward Voltage<br>NTE30030 | $V_F$ | $I_F$ = 20mA | – | 2.2 | 2.4 | V |
| NTE30031 | | | – | 3.5 | 4.0 | V |
| NTE30032, NTE30035 | | | – | 2.0 | 2.4 | V |
| NTE30033 | | | – | 2.0 | 2.6 | V |
| NTE30034 | | | – | 1.86 | 2.5 | V |
| NTE30036 | | | – | 3.5 | 4.0 | V |
| NTE30044 | | | – | 3.6 | 4.0 | V |

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

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse Current<br>All Devices | $I_R$ | $V_R$ = 5V | – | – | 10 | μA |
| NTE30031, NTE30036, NTE30044 **Only** | | $V_R$ = 4V | – | – | 60 | μA |
| Luminous Intensity<br>NTE30030 | $I_V$ | $I_F$ = 20mA, Note 1 | – | 1600 | – | mcd |
| NTE30031 | | | – | 5000 | – | mcd |
| NTE30032, NTE30033, NTE30035 | | | – | 2500 | – | mcd |
| NTE30034 | | | – | 2000 | – | mcd |
| NTE30036 | | | 1500 | 3000 | – | mcd |
| NTE30044 | | | – | 7000 | – | mcd |
| Peak Emission Wave Length<br>NTE30030 | $\lambda_P$ | $I_F$ = 20mA | – | 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 **Only**) | $\lambda_d$(HUE) | $I_F$ = 20mA, Note 2 | 465 | 470 | 475 | nm |
| Spectral Line Half Width<br>NTE30030, NTE30033, NTE30034, NTE30035 | $\Delta\lambda$ | $I_F$ = 20mA | – | 20 | – | nm |
| NTE30031 | | | – | 45 | – | nm |
| NTE30032 | | | – | 25 | – | nm |
| NTE30036 | | | – | 35 | – | nm |
| Viewing Angle<br>NTE30030, NTE30031 | $2\theta^1/_2$ | $I_F$ = 20mA | – | 14 | – | deg. |
| NTE30032, NTE30033, NTE30035 | | | – | 10 | – | deg. |
| NTE30034 | | | – | 19 | – | deg. |
| NTE30036 | | | – | 15 | – | deg. |
| NTE30044 | | | – | 30 | – | deg. |
| Optic Rise Time (NTE30036 **Only**) | $\tau$ | $I_F$ = 20mA | – | 30 | – | ns |

Note 1. Luminous intensity is measured with an Exeltron 2001.
Note 2.

**NTE30030 thru NTE30036**




**NTE30044**

