ELECTRONICS, INC.
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RoHS 2002/95/EC

NTE30065 thru NTE30071
Super Bright LED Indicators, 10mm

Features:

- RoHS Compliant
- All Plastic Mold Type w/Water Clear Lens:
  - NTE30065 (Yellow Green, AlInGaP/GaAs)
  - NTE30066 (Light Green, InGaN/GaN)
  - NTE30067 (Orange, AlInGaP/GaAs)
  - NTE30068 (Light Red, AlInGaP/GaAs)
  - NTE30069 (Deep Red, GaAlAs/GaAlAs)
  - NTE30070 (Blue, INGaN/GaN)
  - NTE30071 (White)

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Reverse Voltage, V_R
- NTE30066, NTE30070, NTE30071 . . . . . 4V
- NTE30065, NTE30067, NTE30068, NTE30069 . . . . . 5V

Continuous Forward Current, I_F
- All Devices 25mA
- NTE30066 **Only** 30mA

Peak Forward Current (1.10 Duty Cycle, 0.1ms Pulse Width), I_{FM}
- NTE30065, NTE30067, NTE30068, NTE30069 . . . . . 50mA
- NTE30066, NTE30070, NTE30071 . . . . . 100mA

Power Dissipation, P_D
- NTE30065, NTE30067, NTE30068 . . . . . 100mW
- NTE30069 . . . . . 110mW
- NTE30066, NTE30070, NTE30071 . . . . . 120mW

LED Junction Temperature, T_j . . . . . +100°C

Operating Temperature Range, T_{opr} . . . . . –25°C to +85°C

Storage Temperature Range, T_{stg}
- All Devices . . . . . –40°C to +100°C
- NTE30067 **Only** . . . . . –25°C to +100°C

Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), T_L . . . . . +260°C

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

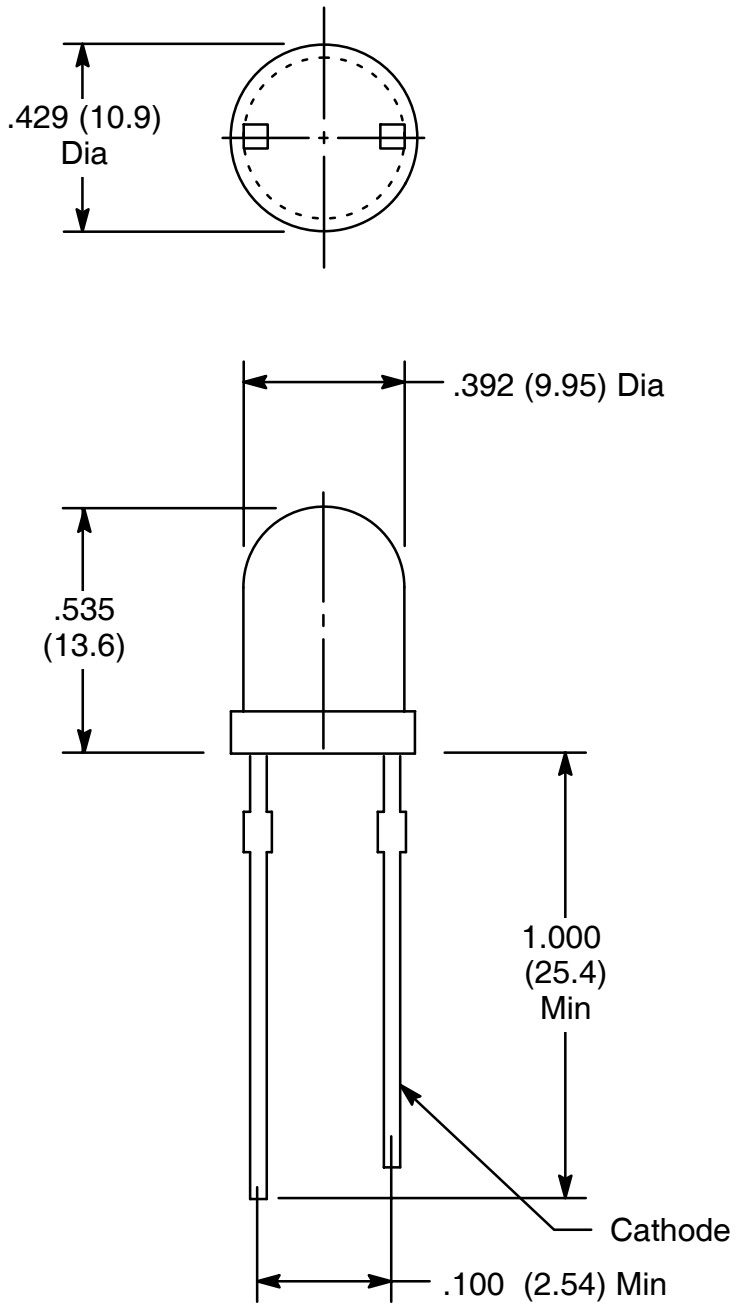
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage NTE30065	V_F	I_F = 20mA	–	2.2	2.5	V
NTE30066, NTE30070			–	3.5	4.0	V
NTE30067, NTE30068			–	2.0	2.5	V
NTE30069			–	1.86	2.5	V
NTE30071			–	3.5	4.2	V

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
NTE30066, NTE30070, NTE30071		V_R = 4V	–	–	60	μA
Luminous Intensity NTE30065	I_V	I_F = 20mA, Note 1	600	1300	–	mcd
NTE30066			1800	3500	–	mcd
NTE30067			1200	2000	–	mcd
NTE30068			1400	2000	–	mcd
NTE30069			1500	3000	–	mcd
NTE30070			600	1200	–	mcd
NTE30071			2000	4000	–	mcd
Peak Emission Wave Length NTE30065	λ_P	I_F = 20mA	–	575	–	nm
NTE30066			–	523	–	nm
NTE30067			–	592	–	nm
NTE30068			–	620	–	nm
NTE30069			–	660	–	nm
NTE30070			–	468	–	nm
NTE30071		CIE Coordinates, Typ	X: 0.30; Y: 0.29			
Dominate Wave Length NTE30065	λ_d (HUE)	I_F = 20mA, Note 2	–	572	–	nm
NTE30066			520	525	540	nm
NTE30067			–	590	–	nm
NTE30068			–	615	–	nm
NTE30069			–	645	–	nm
NTE30070			463	470	479	nm
Spectral Line Half Width NTE30065	$\Delta\lambda$	I_F = 20mA	–	15	–	nm
NTE30066			–	45	–	nm
NTE30067, NTE30068			–	25	–	nm
NTE30069			–	20	–	nm
NTE30070			–	35	–	nm
Viewing Angle	$2\theta^1/_2$	I_F = 20mA	–	40	–	deg.
Terminal Capacitance NTE30065	C_t	V = 0V, f = 1MHz	–	35	–	pF
NTE30067			–	14	–	pF
NTE30068			–	20	–	pF
NTE30069			–	22	–	pF
Response Frequency NTE30065, NTE30067, NTE30068, NTE30069	F_c		–	4	–	MHz
Optic Rise Time (NTE30066 **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.


.429 (10.9)
Dia
.392 (9.95) Dia
.535
(13.6)
1.000
(25.4)
Min
Cathode
.100 (2.54) Min