ELECTRONICS, INC.
44 FARRAND STREET
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(973) 748–5089
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NTE30037 thru NTE30043, NTE30045
Super Bright LED Indicators
5mm (T–1 3/4) Water Clear Lens

Features:

- All Plastic Mold Type w/Water Clear Lens:
  - NTE30037 (Yellow Green, AlGaP/GaAs)
  - NTE30038 (Pure Green, GaInN/GaN)
  - NTE30039 (Yellow, AlInGaP/GaP)
  - NTE30040 (Orange)
  - NTE30041 (Deep Red, GaAlAs/GaAlAs)
  - NTE30042 (Amber)
  - NTE30043 (Blue)
  - NTE30045 (White, GaInN/GaN)

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

Reverse Voltage, V_R
- All devices 5V

Continuous Forward Current, I_F
- NTE30037, NTE30038, NTE30039, NTE30040, NTE30041, NTE30042 . . . . . 25mA
- NTE30045 . . . . . 30mA
- NTE30043 . . . . . 40mA

Peak Forward Current (1.10 Duty Cycle, 0.1ms Pulse Width), I_{FM}
- NTE30037, NTE30042 . . . . . 50mA
- NTE30039, NTE30040, NTE30041, NTE30045 . . . . . 100mA
- NTE30038 . . . . . 150mA
- NTE30043 . . . . . 200mA

Power Dissipation, P_D
- NTE30037, NTE30040 . . . . . 100mW
- NTE30041 . . . . . 110mW
- NTE30038, NTE30045 . . . . . 120mW
- NTE30039, NTE30042 . . . . . 150mW
- NTE30043 . . . . . 200mW

Operating Temperature Range, T_{opr} . . . . . –25°C to +85°C
- NTE30038 **Only** . . . . . –40°C to +100°C
- NTE30039, NTE30040, NTE30042, NTE30043 **Only** . . . . . –20°C to +80°C

Storage Temperature Range, T_{stg}
- NTE30038, NTE30042 **Only** . . . . . –40°C to +100°C
- NTE30039, NTE30040, NTE30043 **Only** . . . . . –30°C to +100°C
- All other devices . . . . . –25°C to +100°C

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

Rev. 08–23

RoHS

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage NTE30037	V_F	I_F = 20mA	–	2.2	2.4	V
NTE30038			3.0	3.3	3.6	V
NTE30039, NTE30040, NTE30042			2.0	–	2.2	V
NTE30041			1.8	2.0	2.2	V
NTE30043			3.0	–	3.4	V
NTE30045			–	3.6	4.0	V
Reverse Current NTE30037, NTE30040, NTE30041	I_R	V_R = 5V	–	–	10	μA
NTE30038			–	–	100	μA
NTE30045		V_R = 4V			60	μA
Luminous Intensity NTE30037	I_V	I_F = 20mA, Note 1	–	2500	–	mcd
NTE30038			–	11000	–	mcd
NTE30039, NTE30042			10000	–	12000	mcd
NTE30040			2000	–	3000	mcd
NTE30041, NTE30043			8000	–	10000	mcd
NTE30045			–	16000	–	mcd
Peak Emission Wave Length NTE30037	λ_P	I_F = 20mA	–	575	–	nm
NTE30038			–	523	–	nm
NTE30039			590	593	595	nm
NTE30040			620	–	625	nm
NTE30041			660	–	665	nm
NTE30042			600	605	610	nm
NTE30043			460	465	470	nm
NTE30045		CIE Coordinates, Typ	X: 0.30; Y: 0.31			
Viewing Angle NTE30037	$2\theta^1/_2$	I_F = 20mA	–	12	–	deg.
NTE30038			–	15	–	deg.
NTE30045			–	22	–	deg.
All Others			–	30	–	deg.

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