ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(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

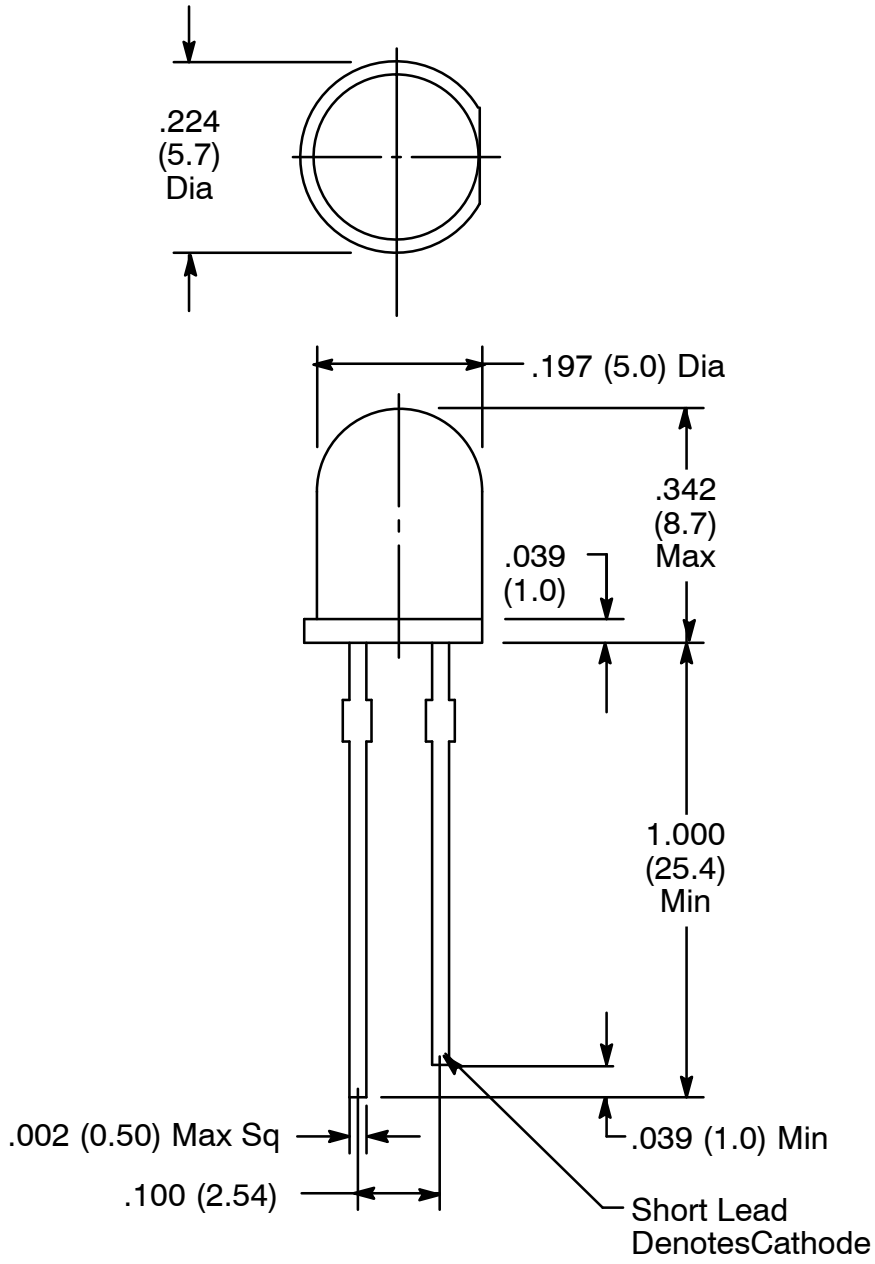
Rev. 08–23

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.


.224
(5.7)
Dia
.197 (5.0) Dia
.342
(8.7)
Max
.039
(1.0)
1.000
(25.4)
Min
.002 (0.50) Max Sq
.100 (2.54)
.039 (1.0) Min
Short Lead
DenotesCathode