ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

RoHS
2002/95/EC

NTE30074 thru NTE30079
Light Emitting Diode (LED)
1206 Surface Mount

Features:

- Available in 5 Different Colors:
  - NTE30074 (Super Fresh Red, AlInGaP/GaAs)
  - NTE30075 (Super Green)
  - NTE30076 (Super Yellow, AlInGaP/GaAs)
  - NTE30077 (Super Orange, AlInGaP/GaAs)
  - NTE30078 (Super Blue)
  - NTE30079 (Super White)
- 3.2mm x 1.6mm (1206) SMT LED, 1.1mm Thickness
- Single Color
- Suitable for All SMT Assembly and Solder Process
- Ideal for Backlighting

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

DC Forward Current, I_F
- NTE30074, NTE30076, NTE30077 . . . . . 25mA
- NTE30075, NTE30078, NTE30079 . . . . . 20mA

Peak Forward Current (Note 1), $I_{F(peak)}$
- NTE30074, NTE30076, NTE30077 . . . . . 50mA
- NTE30075, NTE30078, NTE30079 . . . . . 100mA

Reverse Voltage, V_R
- NTE30078 & NTE30079 . . . . . 4V
- All Other Devices 5V

Power Dissipation, P_D
- NTE30074, NTE30076, NTE30077 . . . . . 100mW
- NTE30075, NTE30078, NTE30079 . . . . . 120mW

Electrostatic Discharge (NTE30075, NTE30078 & NTE30079 **Only**), ESD 150V

LED Junction Temperature, T_J
- NTE30078 **Only** . . . . . +125°C
- All Other Devices . . . . . +100°C

Operating Temperature Range, T_{opr}
- NTE30079 **Only** . . . . . −25° to +85°C
- All Other Devices . . . . . −30° to +85°C

Storage Temperature Range, T_{stg}
- NTE30079 **Only** . . . . . −30° to +85°C
- All Other Devices . . . . . −40° to +85°C

Reflow Soldering (Preheat +150° to +180°C 60sec to 120sec, 10sec max) . . . . . +260°C

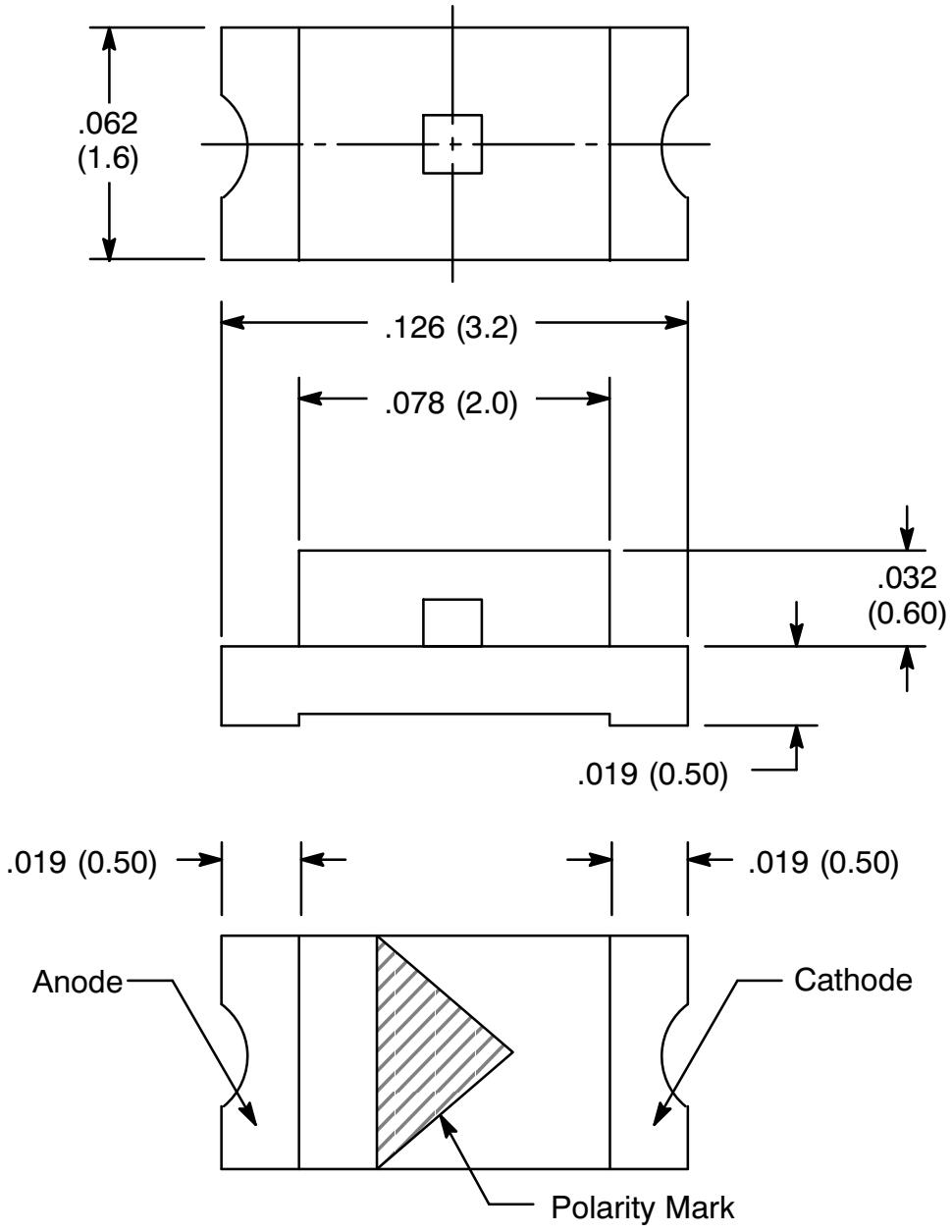
Note 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Electrical/Optical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Viewing Angle of Half Power	$2\Theta 1/2$	I_F = 20mA	–	140	–	degrees
Luminous Intensity NTE30074	I_V	I_F = 20mA, Note 2	50	100	–	mcd
NTE30075			120	220	–	mcd
NTE30076			30	100	–	mcd
NTE30077			60	100	–	mcd
NTE30078			25	48	–	mcd
NTE30079			200	350	–	mcd
Forward Voltage NTE30074, NTE30076, NTE30077	V_F	I_F = 20mA	–	2.0	2.4	V
NTE30075, NTE30079			–	3.5	4.2	V
NTE30078			–	3.5	4.0	V
Reverse Current NTE30074, NTE30076, NTE30077	I_R	V_R = 5V	–	–	10	μA
NTE30075		V_R = 4V	–	–	10	μA
NTE30078, NTE30079			–	–	60	μA
Peak Emission Wave Length NTE30074	λ_P	I_F = 20mA	–	635	–	nm
NTE30075			–	523	–	nm
NTE30076			–	589	–	nm
NTE30077			–	620	–	nm
NTE30078			–	468	–	nm
Dominate Wavelength NTE30074	$\lambda_{d\ (HUE)}$	I_F = 20mA, Note 3	–	626	–	nm
NTE30075			–	525	–	nm
NTE30076			–	588	–	nm
NTE30077			–	615	–	nm
NTE30078			465	470	480	nm
Spectral Line Half Width NTE30074, NTE30077	$\Delta\lambda$	I_F = 20mA	–	25	–	nm
NTE30075, NTE30078			–	45	–	nm
NTE30076			–	20	–	nm
Chromaticity Coordinates (NTE30079 **Only**)	x	I_F = 20mA	–	0.29	–	
	y		–	0.31	–	

Note 2. Tolerance: 30% measured with EXELTRON 2001

Note 3. The dominate wavelength, λ_d, is derived from the CIE Chromatic Diagram and represents the color of the device.


.062
(1.6)
.126 (3.2)
.078 (2.0)
.032
(0.60)
.019 (0.50)
.019 (0.50)
.019 (0.50)
Anode
Cathode
Polarity Mark