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## NTE3007 thru NTE3011 Discrete LED Indicators

### Features:

- All Plastic Mold Type:
  - NTE3007 (Diffused Red, Gallium Arsenide Phosphide Red)
  - NTE3008 (Diffused Bright Red, Gallium Phosphide on Gallium Phosphide Red)
  - NTE3009 (Diffused Orange, Gallium Arsenide Phosphide on Gallium Phosphide Orange)
  - NTE3010 (Diffused Green, Gallium Phosphide on Gallium Phosphide Green)
  - NTE3011 (Diffused Yellow, Gallium Arsenide Phosphide on Gallium Phosphide Yellow)
- Low Power Consumption
- High Efficiency
- IC Compatible/Low Current Requirements
- Diffused Lens
- Wide Viewing Angle

### Absolute Maximum Ratings: ( $T_A = +25^\circ\text{C}$ unless otherwise specified)

Reverse Voltage, $V_R$ .....	5V
Continuous Forward Current, $I_F$	
NTE3007 .....	40mA
Derate Linearly Above $25^\circ\text{C}$ .....	0.5mA/ $^\circ\text{C}$
NTE3008 .....	15mA
Derate Linearly Above $25^\circ\text{C}$ .....	0.2mA/ $^\circ\text{C}$
NTE3009, NTE3010 .....	30mA
Derate Linearly Above $25^\circ\text{C}$ .....	0.4mA/ $^\circ\text{C}$
NTE3011 .....	20mA
Derate Linearly Above $25^\circ\text{C}$ .....	0.25mA/ $^\circ\text{C}$
Peak Forward Current (1.10 Duty Cycle, 0.1ms Pulse Width), $I_F$	
NTE3007 .....	200mA
NTE3008 .....	60mA
NTE3009, NTE3010 .....	120mA
NTE3011 .....	80mA
Power Dissipation, $P_D$	
NTE3007 .....	80mW
NTE3008 .....	40mW
NTE3009, NTE3010 .....	100mW
NTE3011 .....	60mW
Operating Temperature Range, $T_{opr}$ .....	$-55^\circ$ to $+100^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+100^\circ\text{C}$
Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), $T_L$ .....	$+260^\circ\text{C}$

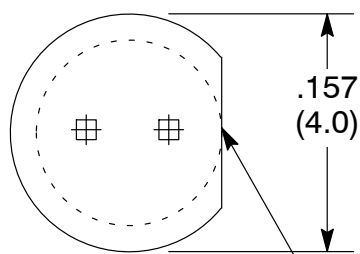
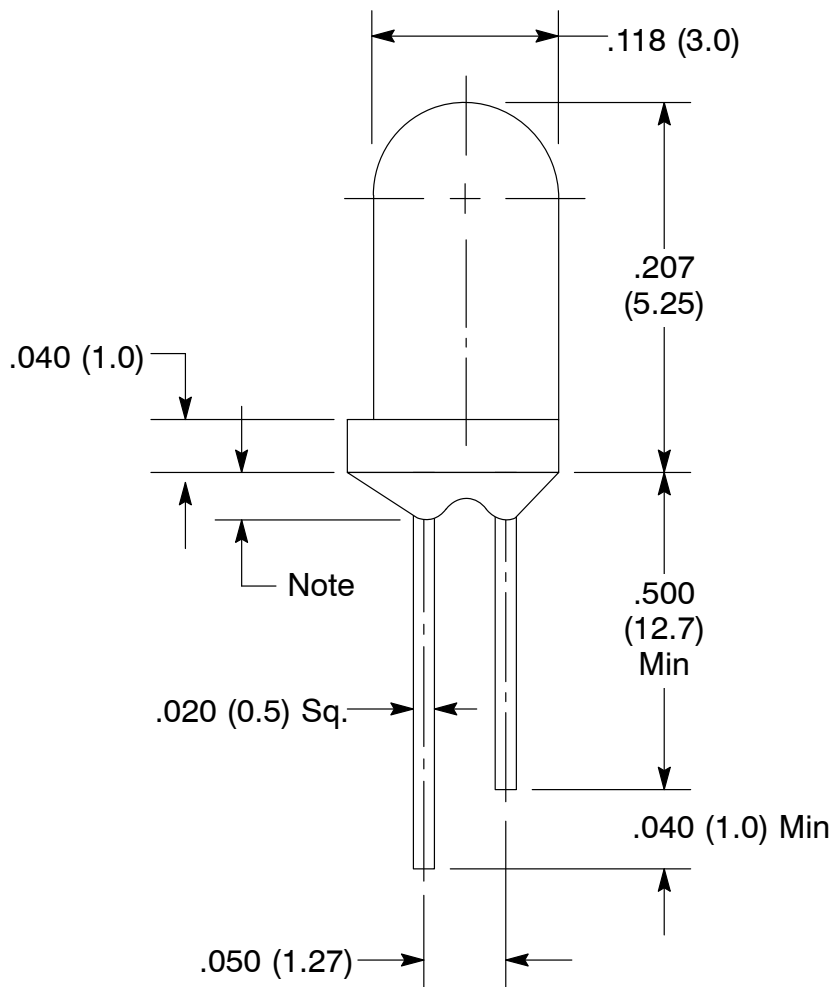
Note 1. **NTE3008, NTE3009 and NTE3010 are discontinued devices and no longer available.**

**Electro-Optical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage NTE3007	$V_F$	$I_F = 20\text{mA}$	-	1.7	2.0	V
NTE3008, NTE3010, NTE3011			-	2.1	2.8	V
NTE3009			-	2.0	2.8	V
Reverse Current	$I_R$	$V_R = 5\text{V}$	-	-	100	$\mu\text{A}$
Luminous Intensity NTE3007	$I_V$	$I_F = 10\text{mA}$ , Note 2	0.3	0.8	-	mcd
NTE3008			0.4	1.1	-	mcd
NTE3009			0.8	3.5	-	mcd
NTE3010, NTE3011			0.8	3.8	-	mcd
Peak Emission Wave Length NTE3007	$\lambda_P$	Measurement @ Peak	-	655	-	nm
NTE3008			-	697	-	nm
NTE3009			-	630	-	nm
NTE3010			-	565	-	nm
NTE3011			-	585	-	nm
Spectral Line Half Width NTE3007	$\Delta\lambda$		-	24	-	nm
NTE3008			-	90	-	nm
NTE3009			-	40	-	nm
NTE3010			-	30	-	nm
NTE3011			-	35	-	nm
Viewing Angle	$2\theta^{1/2}$	Note 3	-	72	-	deg.
Capacitance NTE3007	C	$V_F = 0$ , $f = 1\text{MHz}$	-	30	-	pF
NTE3008			-	55	-	pF
NTE3009			-	20	-	pF
NTE3010			-	35	-	pF
NTE3011			-	15	-	pF

Note 2. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission Internationale De L'Eclairage) eye-response curve.

Note 3. Viewing Angle is the off-axis angle at which the luminous intensity is half the axial luminous intensity.



Flat Denotes Cathode

Note: Protruded resin under flange is  $.059$  (1.5) max