



ELECTRONICS, INC.
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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°C	0.5mA/ $^\circ\text{C}$
NTE3008	15mA
Derate Linearly Above 25°C	0.2mA/ $^\circ\text{C}$
NTE3009, NTE3010	30mA
Derate Linearly Above 25°C	0.4mA/ $^\circ\text{C}$
NTE3011	20mA
Derate Linearly Above 25°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° to $+100^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+100^\circ\text{C}$
Lead Temperature (During Soldering, .063 (1.6mm) from body, 5sec max), T_L	$+260^\circ\text{C}$

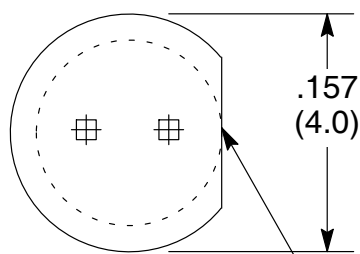
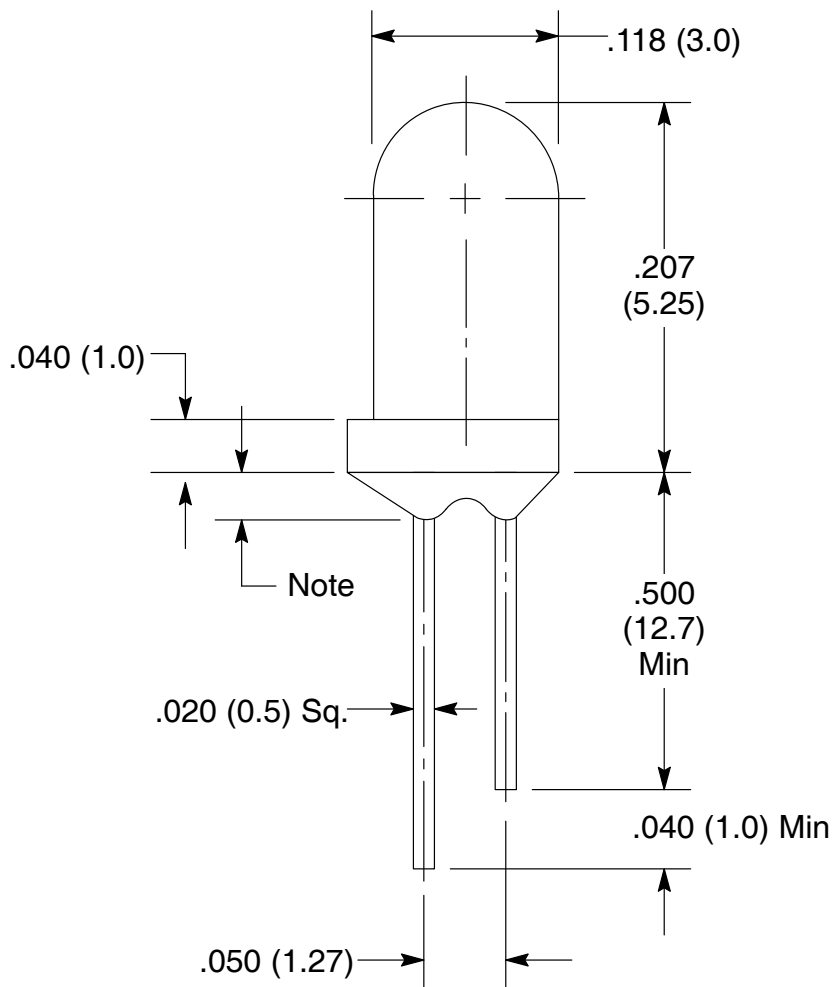
Note 1. **NTE3009** is a **discontinued** device and **no longer available**.

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	μA
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	λ_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