

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	$+260^{\circ}\text{C}$

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 1	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 2	–	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 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission Internationale De L'Eclairage) eye–response curve.

Note 2. Viewing Angle is the off–axis angle at which the luminous intensity is half the axial luminous intensity.

