



ELECTRONICS, INC.

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NTE3000 Light Emitting Diode Water Clear, High Efficiency Red

Description:

The NTE3000 is a high efficiency red source color device made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode in a two lead epoxy package with a clear lens. The NTE3000 is intended for high volume indicator light applications. Major usage is in applications such as diagnostic lights on printed circuit boards and panel lights. It can also be used to displace subminiature lamps as small as T3/4 size.

Features:

- Subminiature Package
- Wide Viewing Angle
- Long Life Solid State Reliability
- Low package Profile

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

Power Dissipation	105mW
Forward Current	
Continuous	30mA
Peak (0.1 ms pulse width, 1/10 duty cycle)	160mA
Reverse Voltage	5.0V
Operating Temperature Range	-40° to $+85^\circ\text{C}$
Storage Temperature Range	-40° to $+85^\circ\text{C}$
Lead Temperature (During Soldering, 5sec max, 2mm below package base)	$+260^\circ\text{C}$

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

Parameter	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity	$I_F = 20\text{mA}$	10	70	-	mcd
Peak Emission Wavelength	$I_F = 20\text{mA}$	-	627	-	nm
Dominate Wavelength	$I_F = 20\text{mA}$	-	625	-	nm
Spectral Line Halfwidth	$I_F = 20\text{mA}$	-	45	-	nm
Forward Voltage	$I_F = 20\text{mA}$	-	2.0	2.5	V
Capacitance	$V = 0, f = 1\text{MHz}$	-	15	-	pF
Reverse Current	$V_R = 5.0\text{V}$	-	-	10	μA
View Angle ($2\theta_{1/2}$)	Note 1	-	20	-	degrees

Note 1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

