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

NTE30008, NTE30009, NTE30010
Light Emitting Diode (LED)
Subminiature

Description:

The NTE30008 thru NTE30010 are solid state LED lamps in a subminiature type package. The High Efficiency Red source color device (NTE30008) is made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode. The Super Bright Green source color device (NTE30009) is made with Gallium Phosphide Green Light Emitting Diode. The Yellow source color device (NTE30010) is made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

Features:

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

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

DC Forward Current, I_F
- NTE30008, NTE30010 . . . . . 30mA
- NTE30009 . . . . . 25mA

Peak Forward Current (Note 1), $I_{F(peak)}$
- NTE30008 . . . . . 160mA
- NTE30009, NTE30010 . . . . . 140mA

Reverse Voltage, V_R 5V
Viewing Angle (2θ1/2) . . . . . 20°
Power Dissipation, P_D 105mW
Operating Temperature Range, T_{opr} . . . . . -40° to +85°C
Storage Temperature Range, T_{stg} . . . . . -40° to +85°C

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

Note 2. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity NTE30008	I_V	I_F = 20mA	12	70	-	mcd
NTE30009			40	100	-	mcd
NTE30010			10	30	-	mcd

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage NTE30008	V_F	I_F = 20mA	-	2.0	2.5	V
NTE30009			-	2.2	2.5	V
NTE30010			-	2.1	2.5	V
Reverse Current	I_R	V_R = 5V	-	-	10	μA
Peak Emission Wave Length NTE30008	λ_P	I_F = 20mA	-	627	-	nm
NTE30009			-	565	-	nm
NTE30010			-	590	-	nm
Dominate Wavelength NTE30008	λ_D	I_F = 20mA	-	625	-	nm
NTE30009			-	568	-	nm
NTE30010			-	588	-	nm
Spectral Line Half Width NTE30008	$\Delta\lambda$	I_F = 20mA	-	45	-	nm
NTE30009			-	30	-	nm
NTE30010			-	35	-	nm
Capacitance NTE30008, NTE30009	C	V_F = 0V, f = 1MHz	-	15	-	pF
NTE30010			-	20	-	pF