



Through Hole Lamp Product Data Sheet LTL-42M3NH51P

Spec No.: DS-20-99-0178

Effective Date: 06/01/2000

Revision: -

LITE-ON DCC

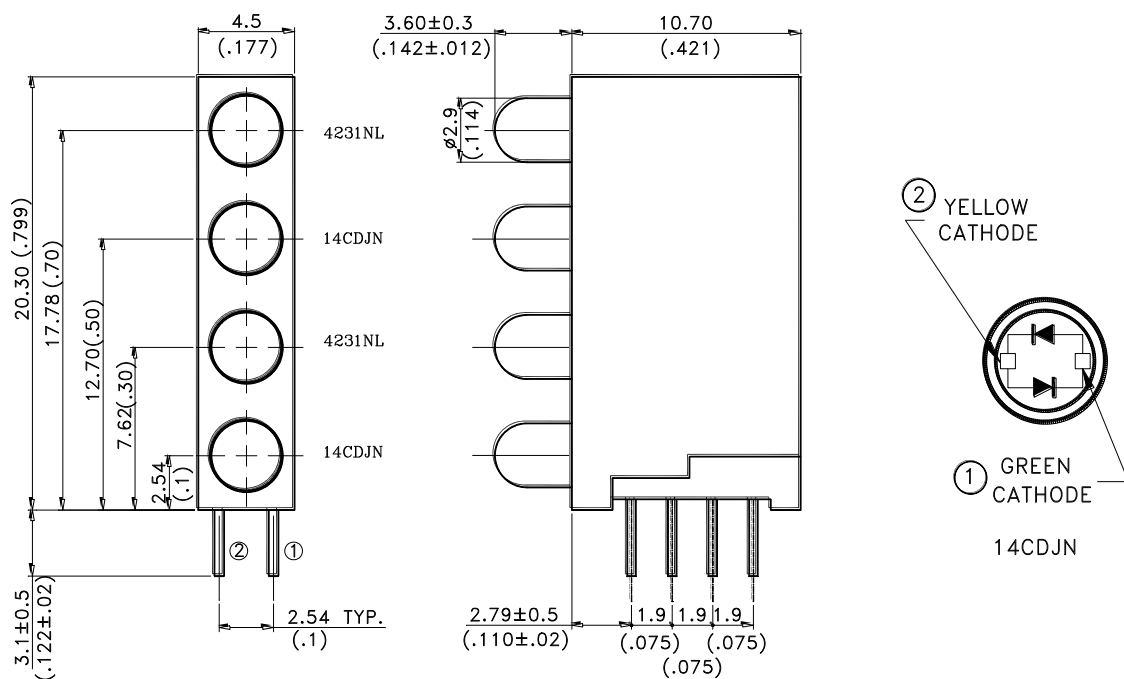
RELEASE

BNS-OD-FC001/A4

Features

- * Designed for ease in circuit board assembly.
- * Black case enhance contrast ratio.
- * Solid state light source.
- * Reliable and rugged.

Package Dimensions



Part No.	Lens	Source Color
LTL-4231NL	Green Diffused	Green
LTL-42CDJN	White Diffused	Green/Yellow

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerances are ±0.25mm (.010") unless otherwise noted.
3. The holder color is black.
4. The holder raw material is nylon.



L I T E - O N E L E C T R O N I C S , I N C .

Property of Lite-On Only

Absolute Maximum Ratings at Ta=25°C

Parameter	Green	Yellow	Unit
Power Dissipation	100	60	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	120	80	mA
Continuous Forward Current	30	20	mA
Derating Linear From 50°C	0.4	0.25	mA/°C
Reverse Voltage (Note 1)	5	—	V
Operating Temperature Range	-55°C to + 100°C		
Storage Temperature Range	-55°C to + 100°C		
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds		

Note : 1. Reverse voltage for LTL-4231NL only.

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	4231NL 14CDJN		Min.		Typ.		Max.		Unit	Test Condition
Luminous Intensity	I _v	GREEN		3.7		12.6				mcd	I _F = 10mA Note 1,4
		GR	YE	3.7	2.5	12.6	8.7				I _F = 20mA Note 1,4
Viewing Angle	2 θ _{1/2}	GREEN				60				deg	Note 2 (Fig.6)
		GR	YE			80					
Peak Emission Wavelength	λ _p	GREEN				565				nm	Measurement @Peak (Fig.1)
		GR	YE			565	585				
Dominant Wavelength	λ _d	GREEN				569				nm	Note 3
		GR	YE			569	588				
Spectral Line Half-Width	Δ λ	GREEN				30				nm	
		GR	YE			30	35				
Forward Voltage	V _F	GREEN				2.1		2.6		V	I _F = 20mA
		GR	YE			2.1	2.1	2.6	2.6		
Reverse Current	I _R	GREEN						100		μ A	V _R = 5V
		GR	YE								V _R = 5V , Note 5
Capacitance	C	GREEN				35				pF	V _F = 0 , f = 1MHz
		GR	YE			35	15				

- Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. I_v needs ±15% additionalary for guaranteed limits.
5. Reverse current is controlled by dice source.

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

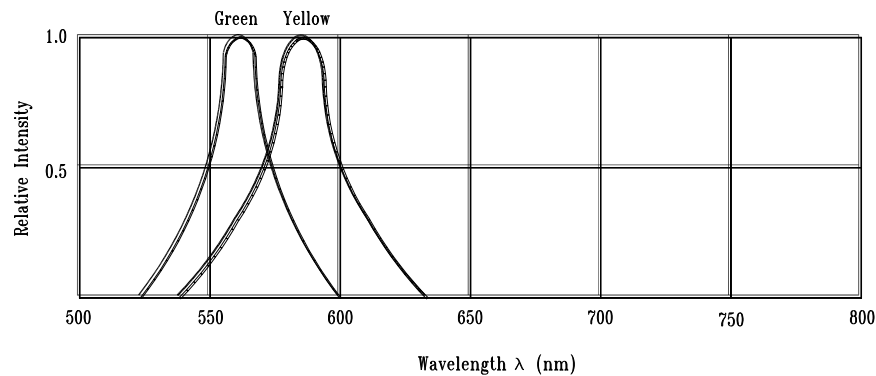


Fig.1 Relative Intensity vs. Wavelength

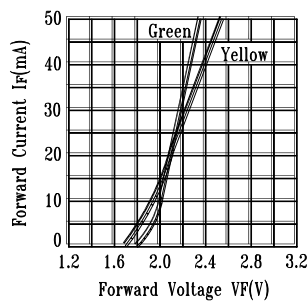


Fig.2 Forward Current vs. Forward Voltage

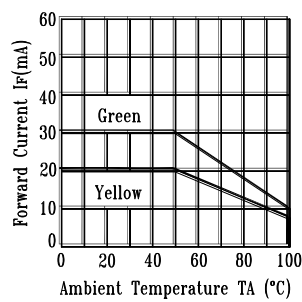


Fig.3 Forward Current Derating Curve

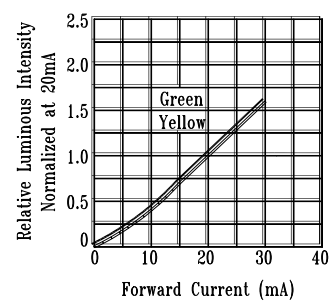


Fig.4 Relative Luminous Intensity vs. Forward Current

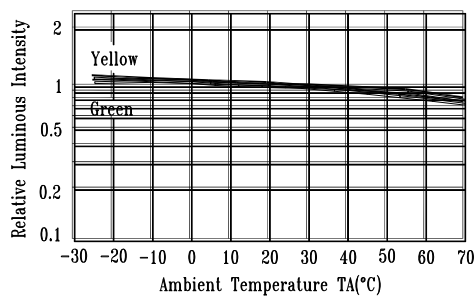


Fig.5 Luminous Intensity vs. Ambient Temperature

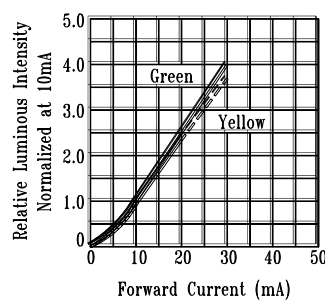


Fig.4 Relative Luminous Intensity vs. Forward Current

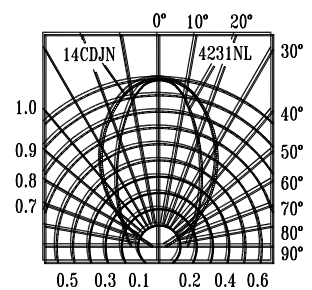


Fig.6 Spatial Distribution