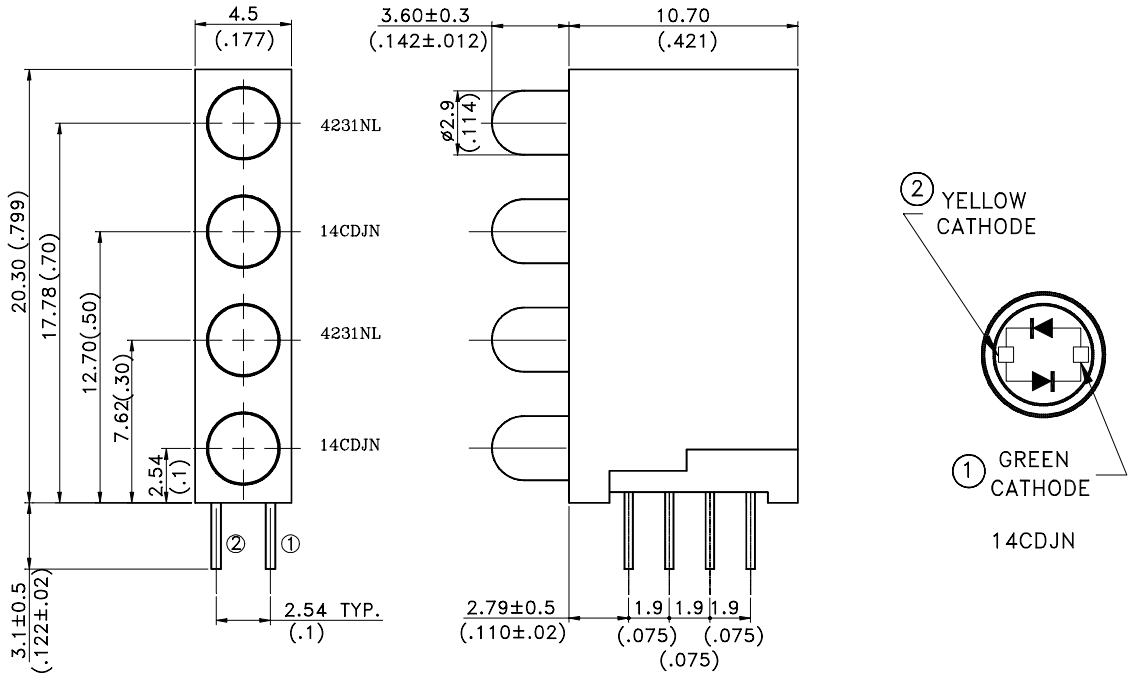
Features

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

Package Dimensions



	①	②
4231NL	Green Cathode	Green Anode
14CDJN	Green Cathode	Yellow Cathode

Part No. LTL-	Lens	Source Color
4231NL	Green Diffused	Green
14CDJN	White Diffused	Green/Yellow

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

Absolute Maximum Ratings at T_a=25℃

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℃	0.4	0.25	mA/℃
Reverse Voltage (Note 1)	5	—	V
Operating Temperature Range	-55℃ to + 100℃		
Storage Temperature Range	-55℃ to + 100℃		
Lead Soldering Temperature [1.6mm(.063") From Body]	260℃ for 5 Seconds		

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

Electrical Optical Characteristics at T_a=25℃

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	$2\theta_{1/2}$	GREEN		60		deg	Note 2 (Fig.6)
		GR YE		80			
Peak Emission Wavelength	λp	GREEN		565		nm	Measurement @Peak (Fig.1)
		GR YE		565 585			
Dominant Wavelength	λd	GREEN		569		nm	Note 3
		GR YE		569 588			
Spectral Line Half-Width	$\Delta\lambda$	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	μA	V_R = 5V
		GR YE					V_R = 5V , Note 5
Capacitance	C	GREEN		35		I_F = 20m 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. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3. The dominant wavelength, λd is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

4. Iv needs ±15% additionary for guaranteed limits.

5. Reverse current is controlled by dice source.

Note 1,4

Typical Electrical / Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

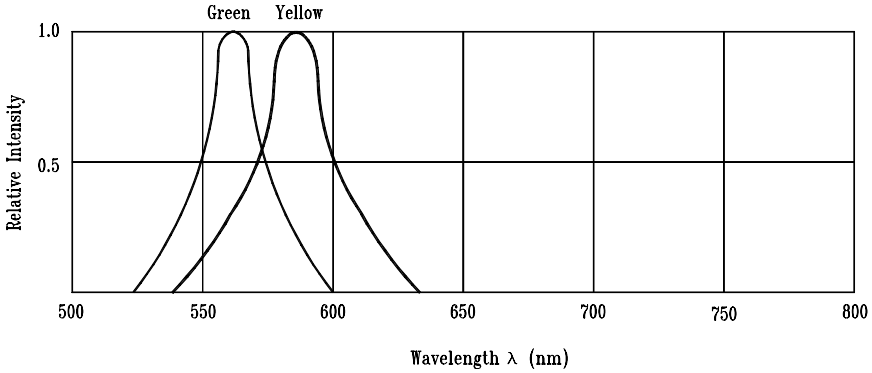


Fig.1 Relative Intensity vs. Wavelength

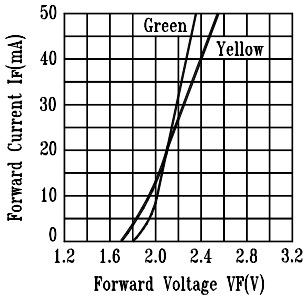


Fig.2 Forward Current vs. Forward Voltage

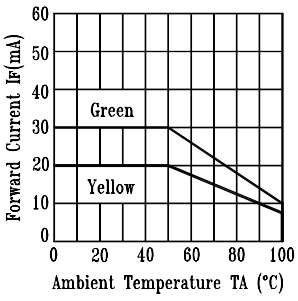


Fig.3 Forward Current Derating Curve

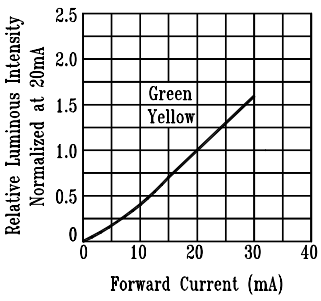


Fig.4 Relative Luminous Intensity vs. Forward Current

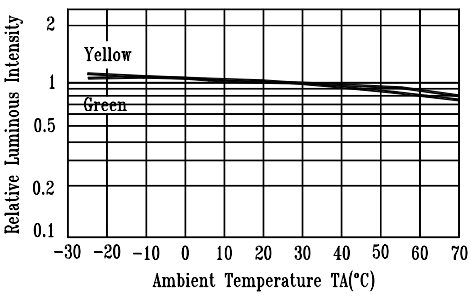


Fig.5 Luminous Intensity vs. Ambient Temperature

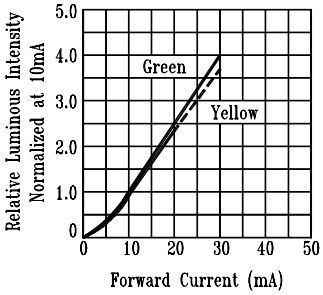


Fig.4 Relative Luminous Intensity vs. Forward Current

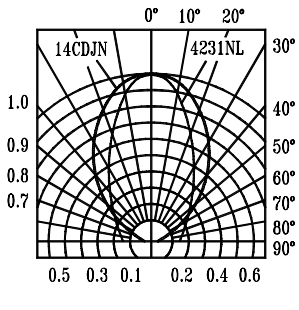


Fig.6 Spatial Distribution