

# Preliminary

## LL-256YGM2F-001

### DATA SHEET



QC: 何遠花

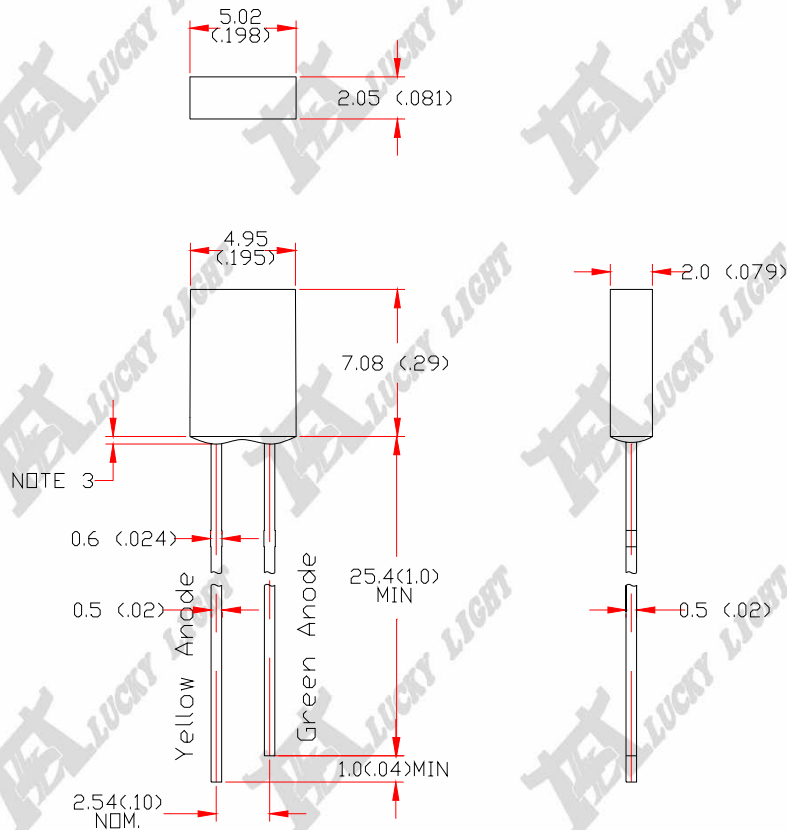
ENG: 鄭文斌

Prepared By: 賓娟

### Features:

- ◆ 2×5mm rectangular package
- ◆ General purpose leads
- ◆ Pb-free

### Package Dimensions:



Part NO.	Chip Material		Lens Color	Emission Color
LL-256YGM2F-001	Green	Yellow	White Diffused	Red & Green
	Gap	GaAsP		

### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. This data-sheet only valid for six months.



**Absolute Maximum Ratings at Ta=25°C**

Parameter	MAX		Unit
	Power Dissipation	Green	
	Yellow	90	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100		mA
Continuous Forward Current	Green	50	mA
	Yellow	35	
Derating Linear From 50°C	0.4		mA/°C
Reverse Voltage	5		V
Operating Temperature Range	-30°C to +80°C		
Storage Temperature Range	-40°C to +100°C		
Lead Soldering Temperature [4mm(.157") From Body]	280°C for 5 Seconds		



**Electrical Optical Characteristics at Ta=25°C**

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>	Green	4	9...		mcd	I <sub>F</sub> =20mA Note 1
		Yellow	2	4			
Viewing Angle	2θ <sub>1/2</sub>	Green	170	180		Deg	Note 2
		Yellow	170	180			
Peak Emission Wavelength	λ <sub>p</sub>	Green	563	568	573	nm	I <sub>F</sub> =20mA
		Yellow	583	588	593		
Dominant Wavelength	λ <sub>d</sub>	Green	565	570	575	nm	I <sub>F</sub> =20mA Note 3
		Yellow	585	590	595		
Spectral Line Half-Width	Δλ	Green	25	30	35	nm	I <sub>F</sub> =20mA
		Yellow	30	35	40		
Forward Voltage	V <sub>F</sub>	Green	1.7	2.2	2.6	V	I <sub>F</sub> =20mA
		Yellow	1.6	2.1	2.5		
Reverse Current	I <sub>R</sub>	Green			10	μA	V <sub>R</sub> =5V Note 4
		Yellow					

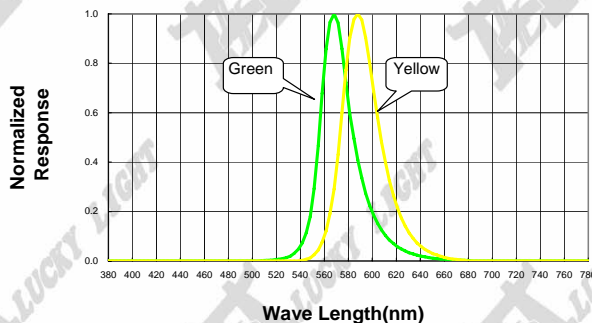
**Notes:**

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- The dominant wavelength (λ<sub>d</sub>) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Reverse current (I<sub>R</sub>) cannot be measure of this type LED.
- Forward voltage measurement allowance is ±0.1V
- Luminous Intensity Measurement Allowance is ± 10%.

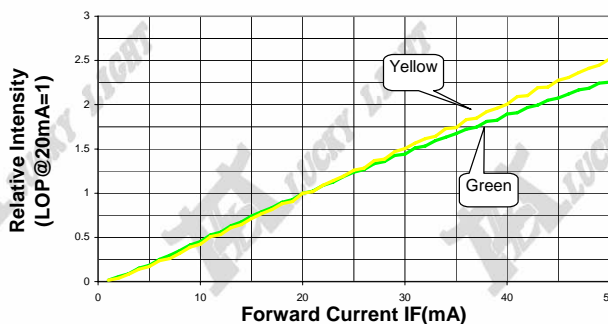


**Typical Electrical / Optical Characteristics Curves**  
 (25°C Ambient Temperature Unless Otherwise Noted)

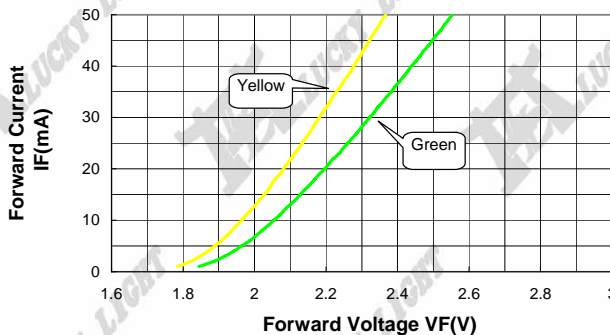
**Spectral Radiance** Green Peak @ 568nm  
 Yellow Peak @ 588nm



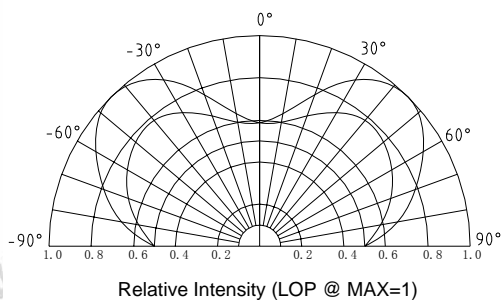
**Relative Luminous Intensity vs Forward Current**



**Forward Current vs Forward Voltage**



**Beam Pattern**



**Forward Current Derating Curve**

