

Preliminary

LL-U27V1C-003

DATA SHEET



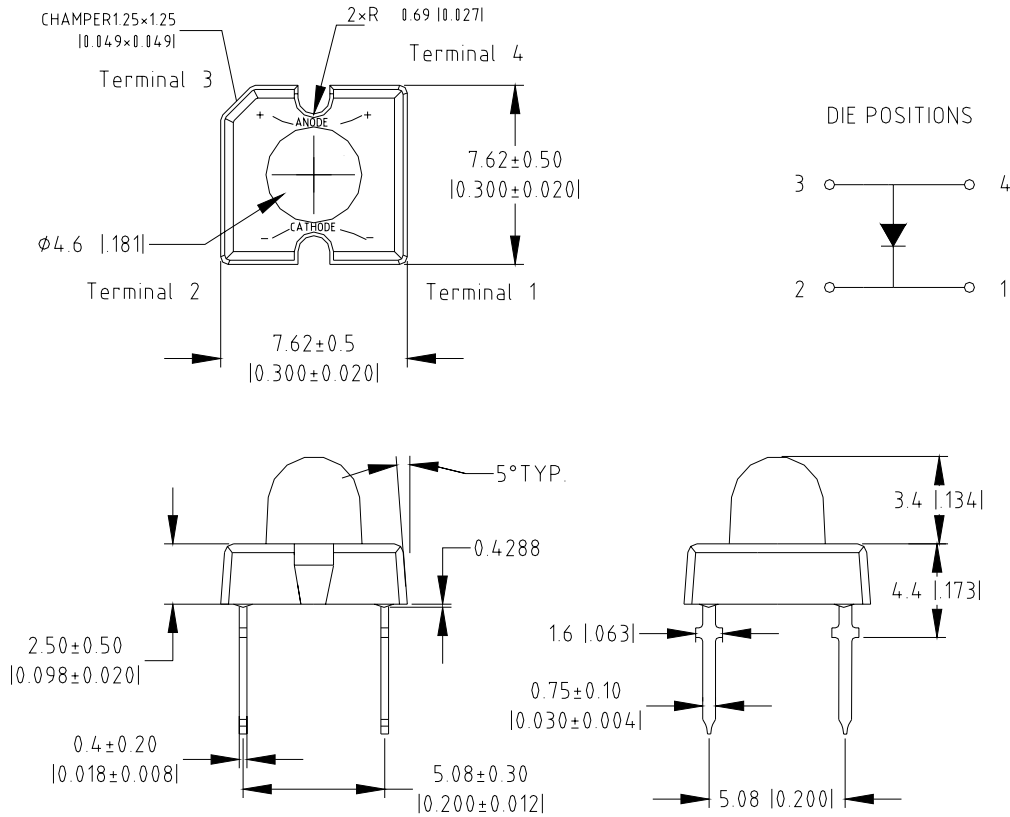
QC: 王士光

ENG: 謝嶽銳

Prepared By: 楊銀花

Part No.	LL-U27V1C-003	Spec No.	S/N-051108016	Page	1 of 4
----------	---------------	----------	---------------	------	--------

Package Dimensions:



Part NO.	Chip Material	Lens Color	Emission Color
LL-U27V1C-003	AlGaInP	Water Clear	Super Bright Red

Notes:

- All dimensions are in millimeters (inches).
- Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted.
- Protruded resin under flange is 1.0mm (.04") max
- Lead spacing is measured where the leads emerge from the package.
- Specifications are subject to change without notice
- Precautions for ESD:

Static electricity and surge can damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

- This data-sheet only valid for six months.



Absolute Maximum Ratings at Ta=25°C

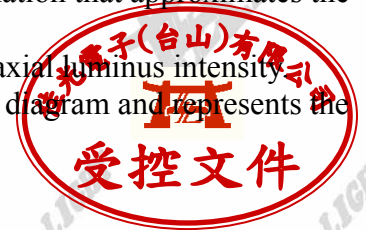
Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	35	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Electrostatic Discharge (ESD)	150	V
Operating Temperature Range	-20°C to +80°C	
Storage Temperature Range	-30°C to +100°C	
Lead Soldering Temperature[4mm(.157") From Body]	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	2200	4900		mcd	I _F =20mA (Note 1)
Viewing Angle	2θ _{1/2}	20	25	30	Deg	Note 2
Peak Emission Wavelength	λ _p	630	635	640	nm	I _F =20mA
Dominant Wavelength	λ _d	620	625	630	nm	I _F =20mA (Note 3)
Spectral Line Half-Width	△λ	15	20	25	nm	I _F =20mA
Forward Voltage	V _F	1.8	2.1	2.6	V	I _F =20mA
Reverse Current	I _R			50	μA	V _R =5V

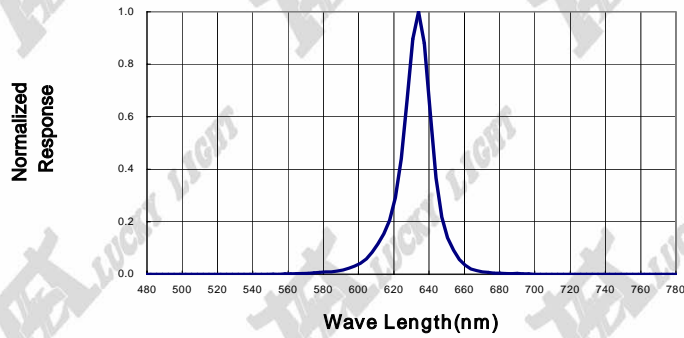
Note:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Forward voltage measurement allowance is ±0.1V
- Luminous Intensity Measurement Allowance is ±10%

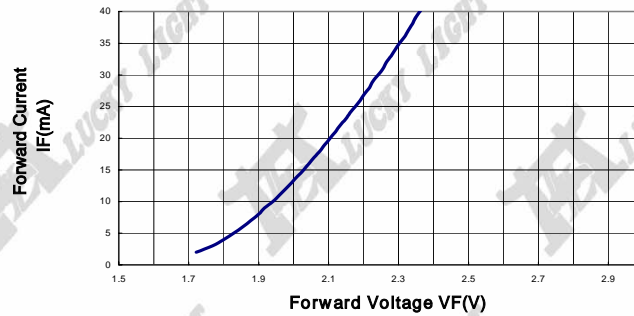


Typical Electrical / Optical Characteristics Curves
 (25°C Ambient Temperature Unless Otherwise Noted)

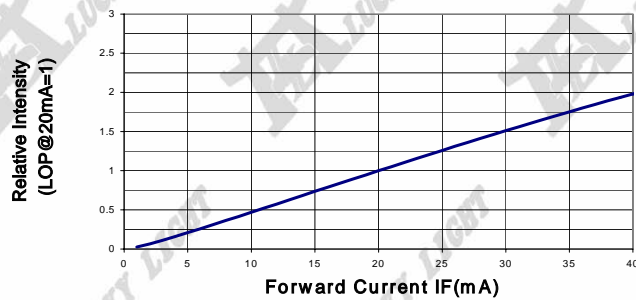
Spectral Radiance (Peak @ 635 nm)



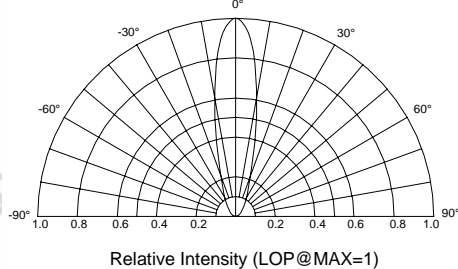
Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern



Forward Current Derating Curve

