LUCKY LIGHT

Preliminary

LL-259VBC1F-001

DATA SHEET

RoHS Compliant

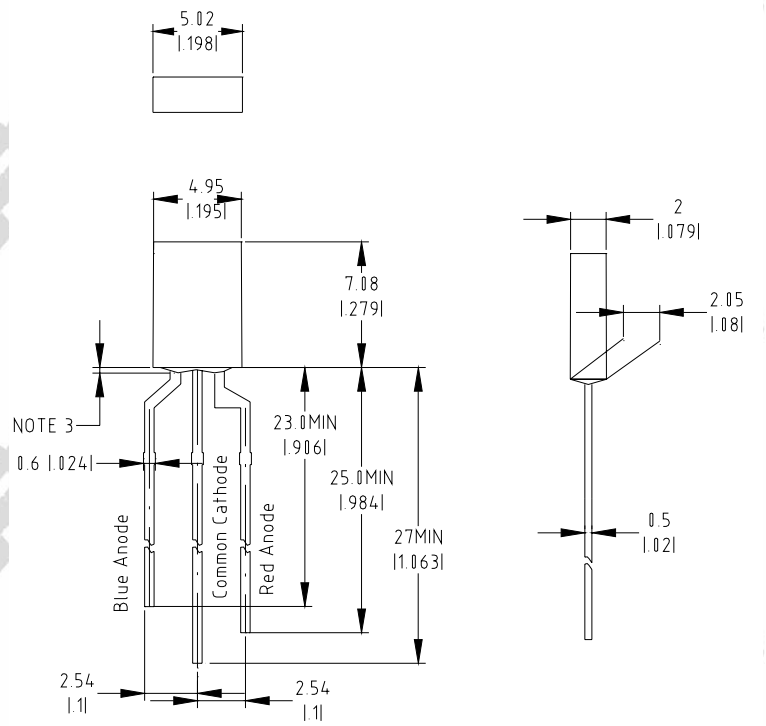
佳光電子(台山)有限公司 受控文件

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-259VBC1F-001	Red	Blue	Water Clear	Red & Blue
	AlGaInP	InGaN		

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.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. Precautions for ESD:
   Static electricity and surges can damage 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.
7. This data-sheet only valid for six months.

Absolute Maximum Ratings at Ta=25℃

Parameter	MAX.		Unit
Power Dissipation	Red	90	mW
	Blue	80	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100		mA
Continuous Forward Current	Red	35	mA
	Blue	20	
Derating Linear From 50℃	0.4		mA/℃
Reverse Voltage	5		V
Electrostatic Discharge (ESD)	150		V
Operating Temperature Range	-30℃ to +80℃		
Storage Temperature Range	-40℃ to +100℃		
Lead Soldering Temperature [4mm(.157") From Body]	280℃ for 5 Seconds		

Electrical Optical Characteristics at Ta=25℃

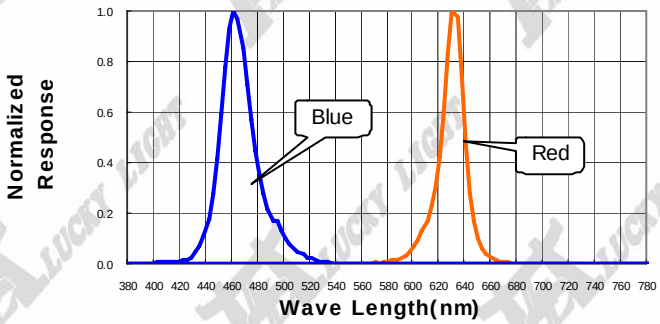
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Red	63	140		mcd	I_F=20mA Note 1
		Blue	94	200			
Viewing Angle	$2\theta_{1/2}$	Red	95	105	115	Deg	Note 2
		Blue	95	105	115		
Peak Emission Wavelength	λp	Red	625	630	625	nm	I_F=20mA
		Blue	463	468	473		
Dominant Wavelength	λd	Red	615	620	625	nm	I_F=20mA Note 3
		Blue	460	470	480		
Spectral Line Half-Width	△λ	Red	15	20	25	nm	I_F=20mA
		Blue	20	25	30		
Forward Voltage	V_F	Red	1.6	2.05	2.60	V	I_F=20mA
		Blue	2.8	3.3	4.0		
Reverse Current	I_R	Red			10	μA	V_R=5V
		Blue					

Note:

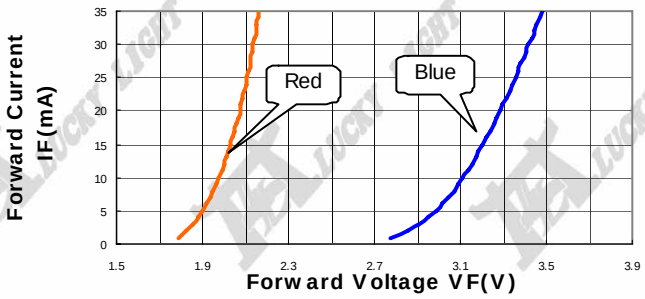
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ) is derived from the CIE chromaticity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

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

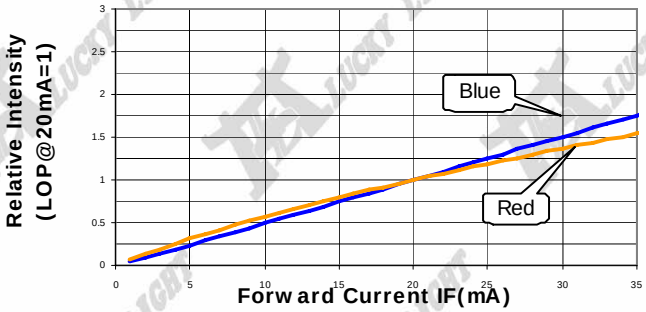
Spectral Radiance Red Peak @ 630nm
Blue Peak @ 468nm



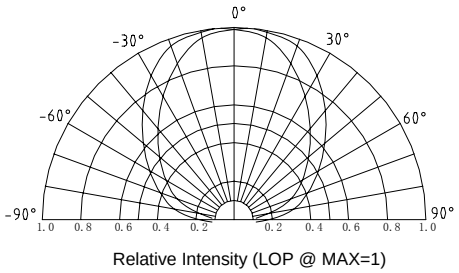
Forward Current
vs Forward Voltage



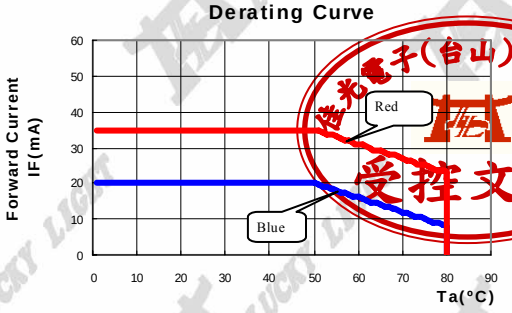
Relative Luminous Intensity
vs Forward Current



Beam Pattern



Forward Cureent
Derating Curve



Part No.	LL-259VBC1F-001	Spec No.	S/N-08092217	Page	5 of 5

Version:1.0