

Preliminary

LL-U42RGBC2B-001

DATA SHEET

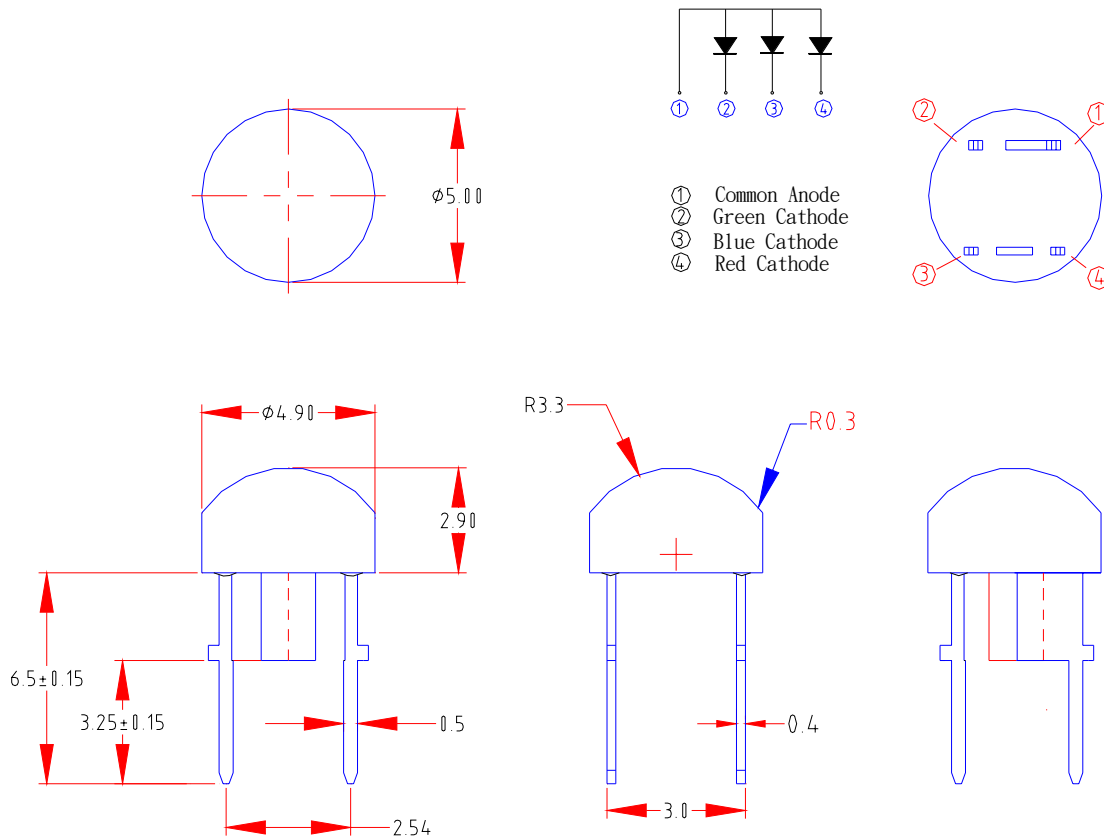
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Prepared By:

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Package Dimensions:



Part NO.	Chip Material			Lens Color	Source Color
	LL-U42RGBC 2B-001	Red AlGaInP	True Green InGaN		

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 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. 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.
7. This data-sheet only valid for six months.

Absolute Maximum Ratings at Ta=25°C

Parameter	Emitting Color	MAX.	Unit
Power Dissipation	Red	90	mW
	Green	120	
	Blue	120	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)		100	mA
Continuous Forward Current	Red	35	mA
	Green	30	
	Blue	30	
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]	260°C for 5 Seconds		

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	Red	180	420	---	mcd	I _F =20mA Note 1
		True Green	350	500	---		
		Blue	40	92	---		
Viewing Angle	2θ _{1/2}	Red	115	125	135	Deg	Note 2
		True Green	115	125	135		
		Blue	115	125	135		
Peak Emission Wavelength	λ _p	Red	630	635	640	nm	Measurement @Peak
		True Green	520	525	530		
		Blue	463	468	473		
Dominant Wavelength	λ _d	Red	620	625	630	nm	Note 3
		True Green	520	530	540		
		Blue	460	470	480		
Spectral Line Half-Width	Δλ	Red	15	20	25	nm	
		True Green	30	35	40		
		Blue	30	35	40		
Forward Voltage	V _F	Red	1.8	2.1	2.5	V	I _F =20mA
		True Green	2.8	3.2	4.0		
		Blue	2.8	3.2	4.0		
Reverse Current	I _R	Red	---	---	100	μA	V _R =5V
		True Green					
		Blue					

Notes:

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.

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

