



LUCKY LIGHT

LL-509RGBC2E-A

DATA SHEET

QC :

ENG :

Prepared By:

Part No.	LL-509RGBC2E-A	Spec No.	S/N-5RE4GABEX28	Page	1 of 5
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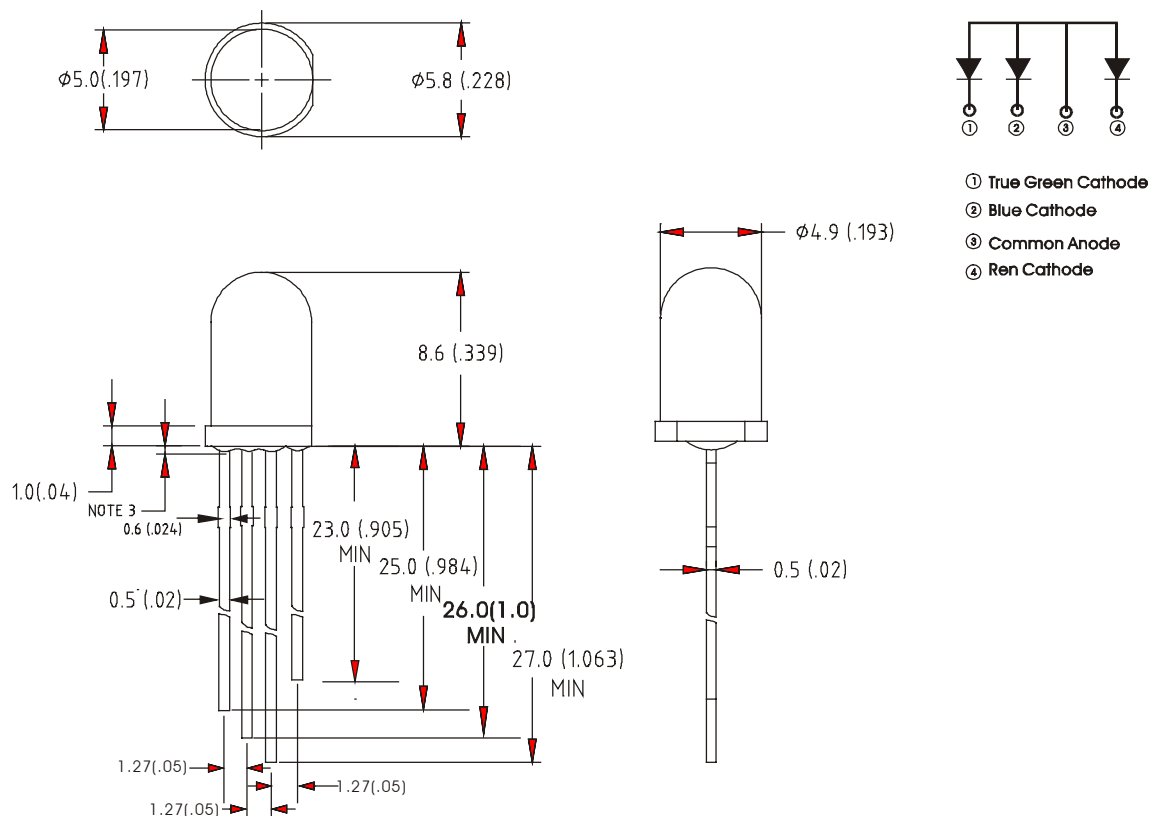


LUCKY LIGHT

Features

- ◆ High intensity
- ◆ Standard T-1 3/4 diameter package
- ◆ Wide viewing angle
- ◆ General purpose leads
- ◆ Reliable and rugged.

Package Dimension:



Part NO.	Chip Material			Lens Color	Source Color
LL-509RGBC2E-A	Red	Green	Blue	Water	Red & True Green & Blue
	AlGaInP	GaInN	GaInN	Clear	

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25 (.010)$ mm unless otherwise noted.
3. Protruded resin under flange is $1.0 \text{ mm} (.04)$ max
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice
6. Caution in ESD:
Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.



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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
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	
Lead Soldering Temperature [4mm(.157") From Body]	260°C for 5 Seconds	



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Electrical Optical Characteristics at Ta=25℃

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	Red	1000	2000	4000	mcd	I _f =20mA Note 1
		True Green	2000	4000	8000		
		Blue	1000	2000	4000		
Viewing Angle	2 θ _{1/2}	Red	25	30	35	Deg	Note 2
		True Green	25	30	35		
		Blue	25	30	35		
Peak Emission Wavelength	λ _p	Red	631	636	641	nm	Measurement @Peak Note 3
		True Green	520	525	530		
		Blue	467	472	477		
Spectral Line Half-Width	Δλ	Red	15	20	25	nm	
		True Green	35	40	45		
		Blue	21	26	31		
Forward Voltage	V _F	Red	1.6	2.05	2.5	V	I _F =20mA
		True Green	2.8	3.2	4.0		
		Blue	2.8	3.6	4.0		
Reverse Current	I _R	Red	---	---	100	μA	V _R =5V
		True Green					
		Blue					

Note:

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_P) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.



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

