



LUCKY LIGHT

LL-307IGM2E-I1-2A

DATA SHEET

QC:

ENG:

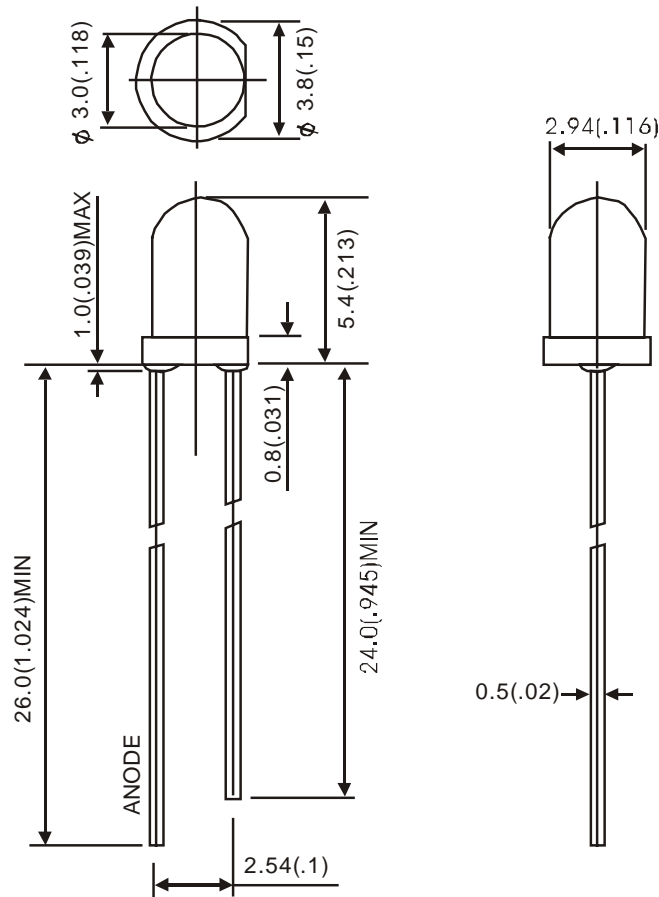
Prepared By:



Features

- ◆ Hi-Eff Red and Green chips are matched for uniform light output.
- ◆ T-1 type package.
- ◆ Long life solid state reliability.
- ◆ Low power consumption.
- ◆ I.C. compatible.

Package Dimension:



Part NO.	Lens Color	Source Color
LL-307IGM2E-I1-2A	White Diffused	Hi-Eff Red & Green

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 1.0mm(.04") max
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice



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	40	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	

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	Red	---	50	---	mcd	I _F =20mA Note 1
		Green	---	48	---		
Viewing Angle	2θ _{1/2}	Red	---	35	---	Deg	Note 2
		Green	---	35	---		
Peak Emission Wavelength	λ _p	Red	---	644	---	nm	Measurement @Peak
		Green	---	565	---		
Dominant Wavelength	λ _d	Red	---	626	---	nm	Note 3
		Green	---	572	---		
Spectral Line Half-Width	Δλ	Red	---	42	---	nm	
		Green	--	30	---		
Forward Voltage	V _F	Red	---	1.9	2.8	V	I _F =20mA
		Green	---	2.1	2.8		
Reverse Current	I _R	Red	---	---	100	μA	V _R =5V
		Green					

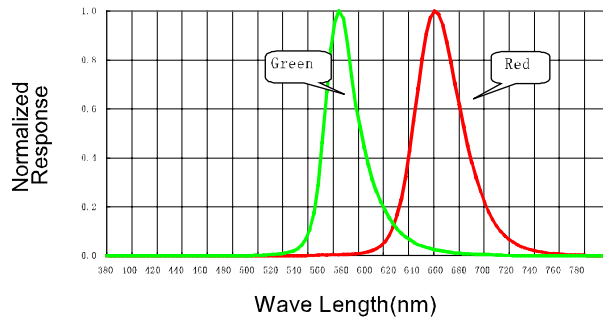
Note:

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

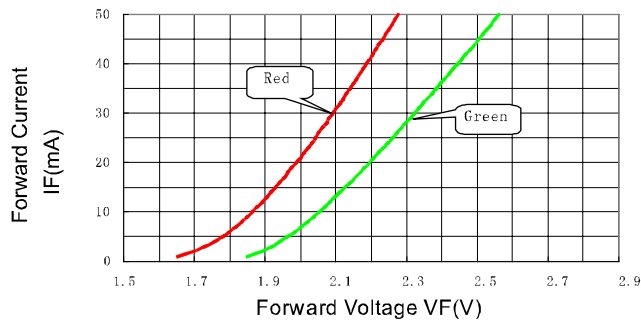


Typical Electrical / Optical Characteristics Curves (25°C Ambient Temperature Unless Otherwise Noted)

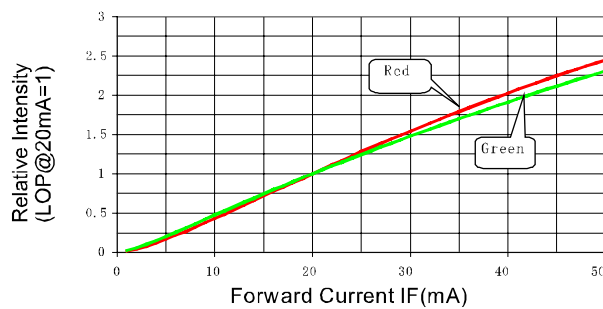
Spectral Radiance Green Peak @565nm
Red Peak @ 644nm



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern

