



LUCKY LIGHT

LL-509IGM2E-I1-2A

DATA SHEET

QC:

ENG:

Prepared By:

Part No.	LL-509IGM2E-I1-2A	Spec No.	S/N-040908011D	Page	1 of 5
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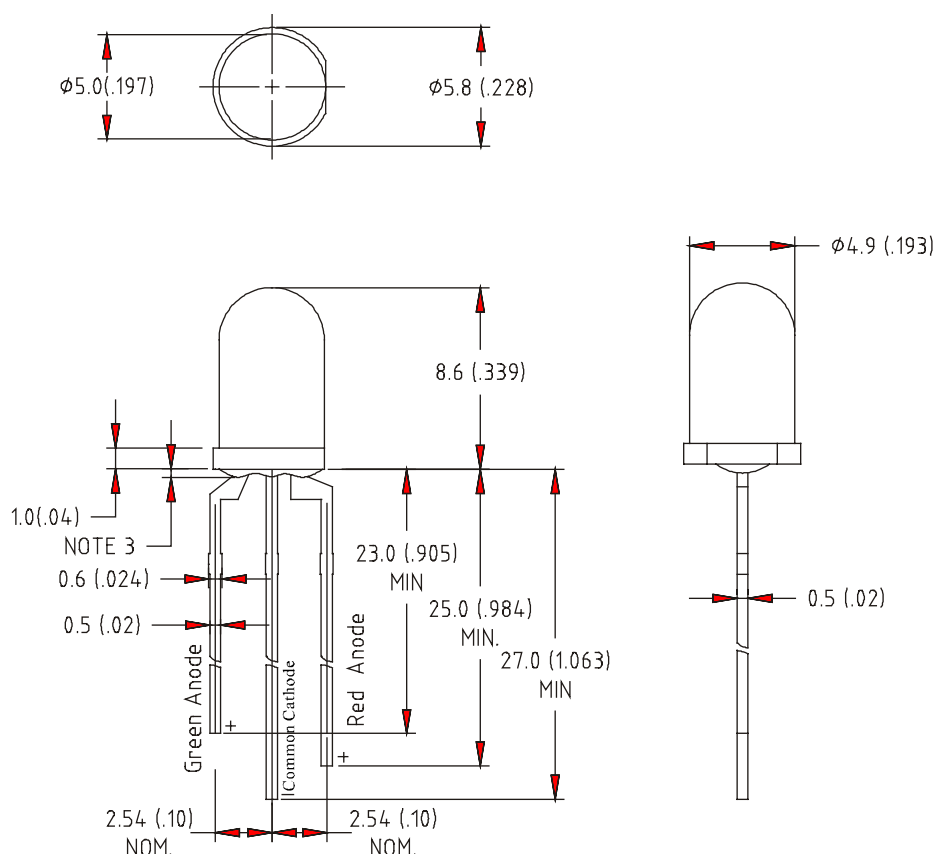


LUCKY LIGHT

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-509IGM2E-I1-2A	White Diffused	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 $1.0\text{mm}(.04'')$ max
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice

**LUCKY LIGHT****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	Green	86	104	---	mcd	I _F =20mA Note 1
		Red	54	81	---		
Viewing Angle	2θ _{1/2}	Green	---	55	---	Deg	Note 2
		Red	---	55	---		
Peak Emission Wavelength	λ _p	Green	---	565	---	nm	Measurement @Peak
		Red	---	644	---		
Dominant Wavelength	λ _d	Green	---	572	---	nm	Note 3
		Red	---	626	---		
Spectral Line Half-Width	△λ	Green	--	30	---	nm	
		Red	---	42	---		
Forward Voltage	V _F	Green	---	2.2	2.8	V	I _F =20mA
		Red	---	2.0	2.8		
Reverse Current	I _R	Green	---	---	100	μA	V _R =5V
		Red					

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.



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

