



SPECIFICATION FOR LED LAMP

PART NO. : LT1821-81-UR96

T-1 3/4 (5mm) ROUND TYPE

Approved by: Chang Jien Prepared by: Tammy

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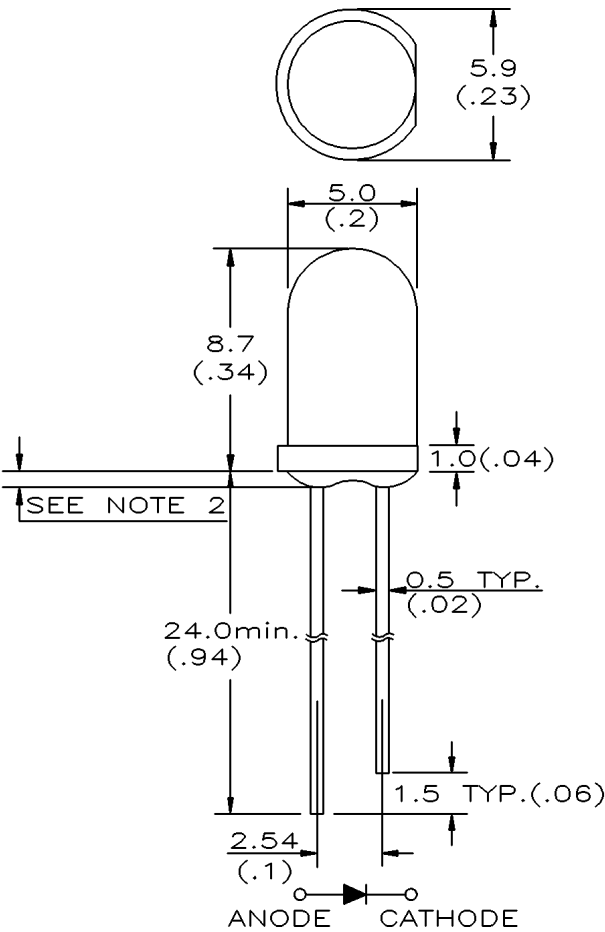
Features

- * High intensity
- * Reliable and rugged
- * Popular T-1 3/4 diameter package
- * Low current requirement
- * IC compatible

Description

The greenish yellow lamps are made with AlGaInP chips and green diffused epoxy resin.

Package Dimensions



- Notes :
1. All dimensions are in millimeters (inches).
 2. Protruded resin under flange is 1.0mm (.04")max.
 3. Tolerance is $\pm 0.25\text{mm}$ (0.10")unless otherwise noted.

Part No.	Led Chip		Lens Color
	Material	Emitting Color	
LT1821-81-UR96	AlGaInP	Greenish Yellow	Green Diffused



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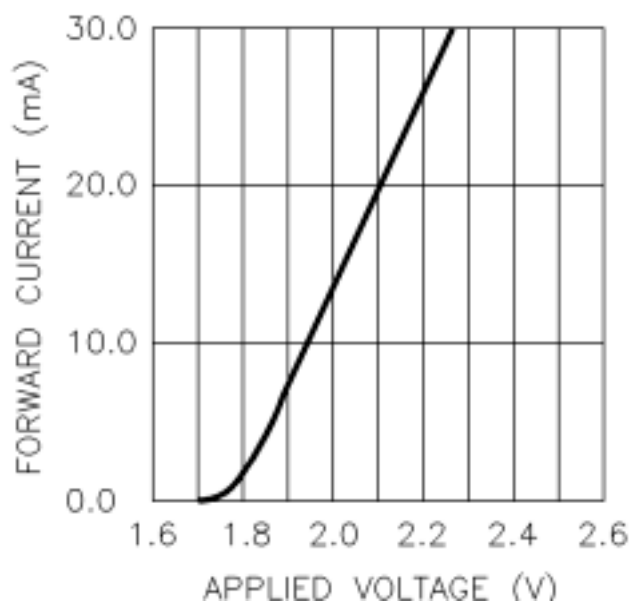
Absolute Maximum Ratings at Ta=25°C :

Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	72	mW
Reverse Voltage	Vr	4	V
D.C. Forward Current	If	30	mA
Peak Current (1/10 Duty Cycle,0.1ms pulse width)	If (Peak)	100	mA
Operating Temperature Range	Topr	-25 to +85	°C
Storage Temperature Range	Tstg	-40 to +100	°C
Lead Soldering Temp. (1.6mm from body) for 5 seconds		260	°C

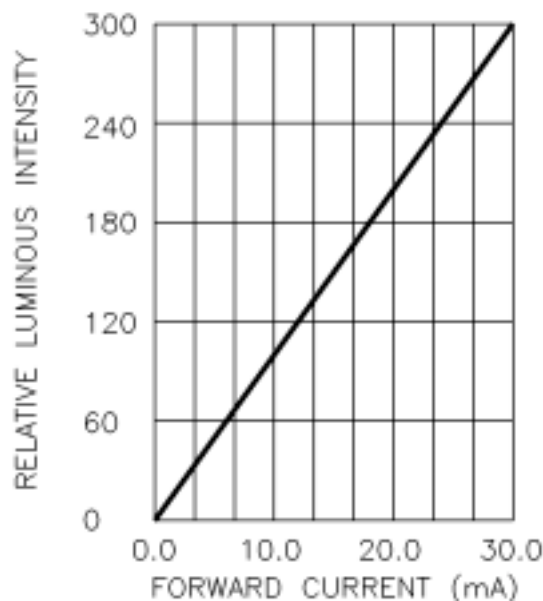
Electrical and Optical Characteristics :

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Intensity	Iv	If=20mA	120	200		mcd
Forward Voltage	Vf	If=20mA		2.1	2.4	V
Peak Wavelength	λ_p	If=20mA		573		nm
Dominant Wavelength	λ_d	If=20mA		571		nm
Reverse Current	Ir	Vr=4V			100	μA
Viewing Angle	$2\theta_{1/2}$	If=20mA		25		deg
Spectrum Line Halfwidth	$\Delta\lambda$	If=20mA		20		nm

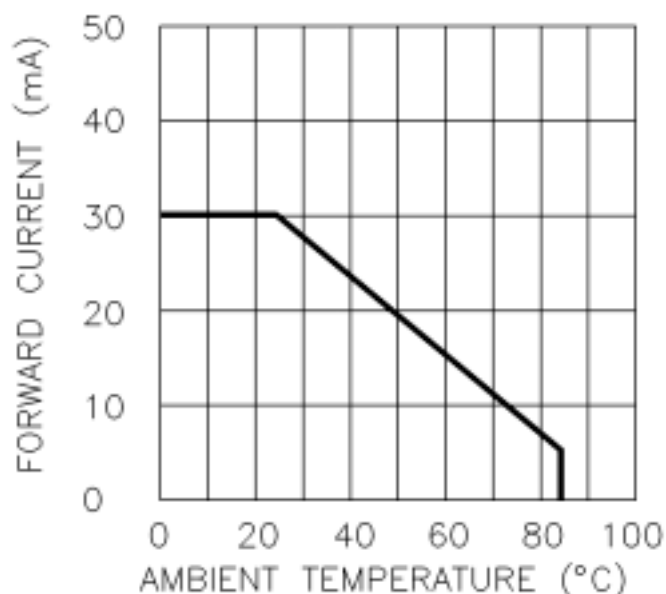
Typical Electrical / Optical Characteristics Curves :



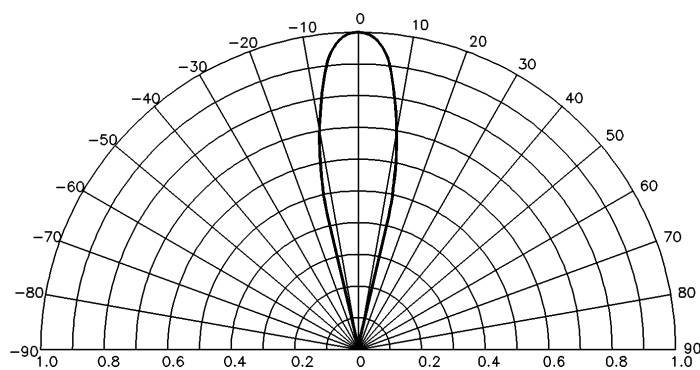
Forward Current vs. Forward Voltage



**Forward Current vs.
Relative Luminous Intensity**



Ambient Temperature vs. Forward Current



Radiation Diagram

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Reliability Test Method :

Test Item	Test Condition	Duration Time
Operation Life	If=20mA / Ta=25°C	168 hrs
Storage at High Temperature	Ta=100°C	168 hrs
Storage at Low Temperature	Ta=-40°C	168 hrs
Storage at High Temperature/High Humidity	Ta=85°C / RH=85%	168 hrs
Operating at High Temperature	Ta=85°C / If=20mA	168 hrs
Operating at Low Temperature	Ta=-25°C / If=20mA	168 hrs
Thermal Shock	Ta/T=100°C/30min~ - 40°C/30min	10 cycles
Solderability	Tsol=260°C	5 sec

Criteria for Judging The Damage :

Item	Symbol	Test Condition	Criteria for Judgment	
			Min.	Max.
Forward Voltage	Vf	If=20mA	— — —	Initial Data x1.1
Reverse Current	Ir	Vr=4V	— — —	100 μ A
Luminous Intensity	Iv	If=20mA	Initial Data x0.8	— — —