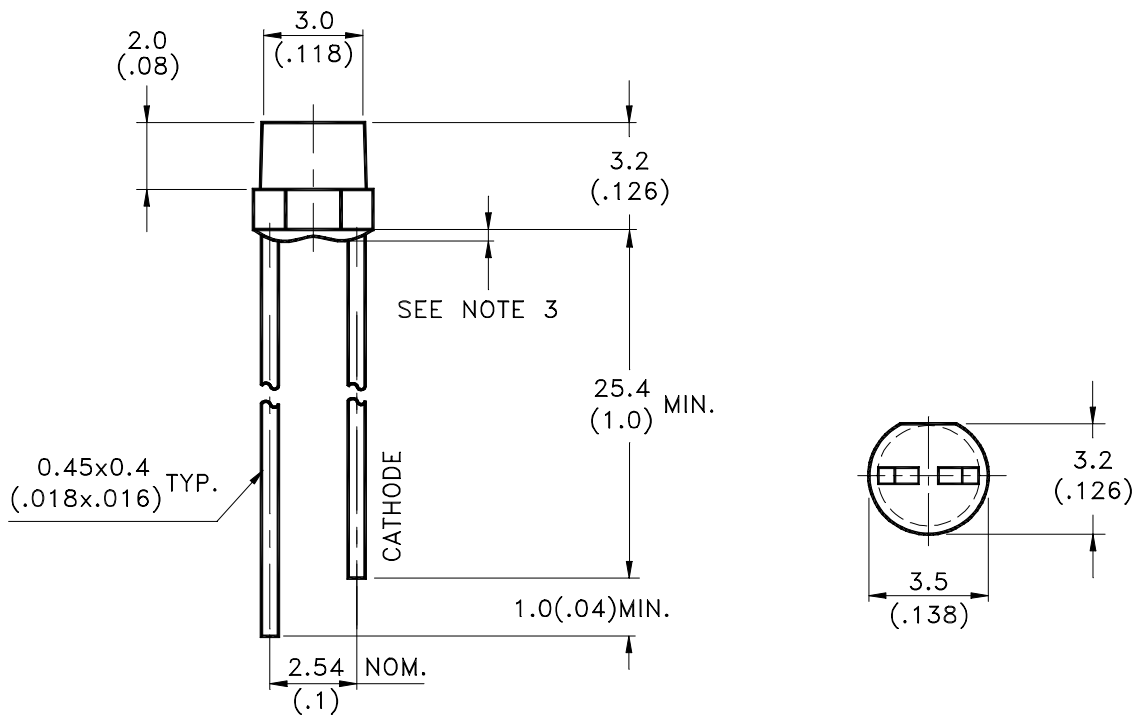


## Features

- \* High luminous intensity output.
- \* Low power consumption.
- \* Wide viewing angle.
- \* Long life-solid state reliability

## Package Dimensions



Part No.	Lens	Source Color
LTL77HKYTNN	Amber Transparent	AlInGaP Amber Yellow

### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}(.010\text{'})$  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	Maximum Rating	Unit
Power Dissipation	75	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to + 100°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

**Electrical / Optical Characteristics at  $T_A=25^\circ\text{C}$** 

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_V$	23	50		mcd	$I_F = 20\text{mA}$ Note 1
Viewing Angle	$2\theta_{1/2}$		150		deg	Note 2 (Fig.5)
Peak Emission Wavelength	$\lambda_P$		595		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	$\lambda_d$		592		nm	Note 4
Spectral Line Half-Width	$\Delta\lambda$		15		nm	
Forward Voltage	$V_F$		2.05	2.4	V	$I_F = 20\text{mA}$
Reverse Current	$I_R$			100	$\mu\text{A}$	$V_R = 5\text{V}$
Capacitance	$C$		40		pF	$V_F = 0, f = 1\text{MHz}$

NOTE: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3.  $I_V$  classification code is marked on each packing bag.

4. The dominant wavelength,  $\lambda_d$  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)

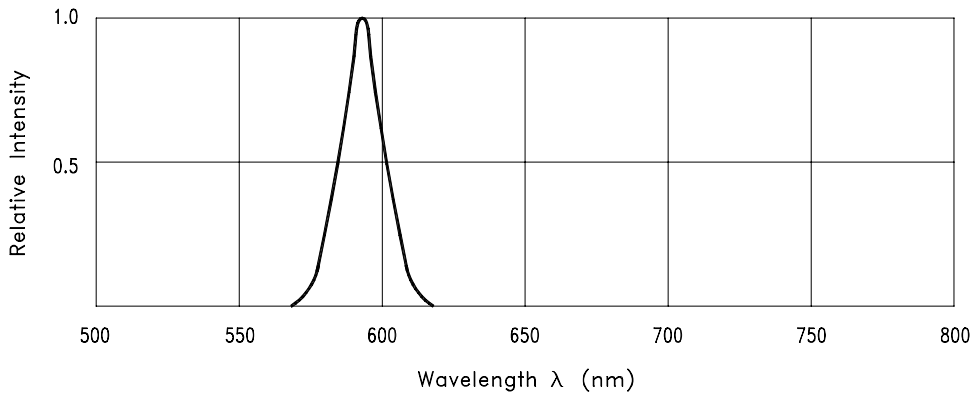


Fig.1 Relative Intensity vs. Wavelength

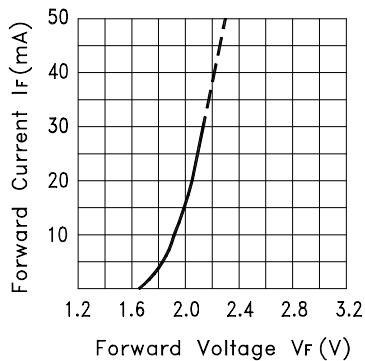


Fig.2 Forward Current vs. Forward Voltage

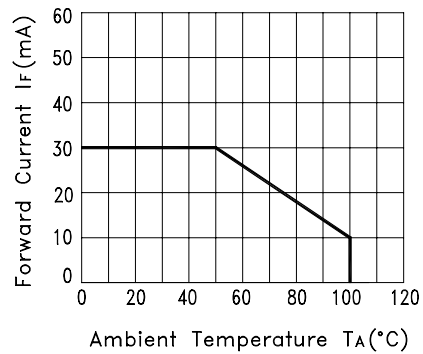


Fig.3 Forward Current Derating Curve

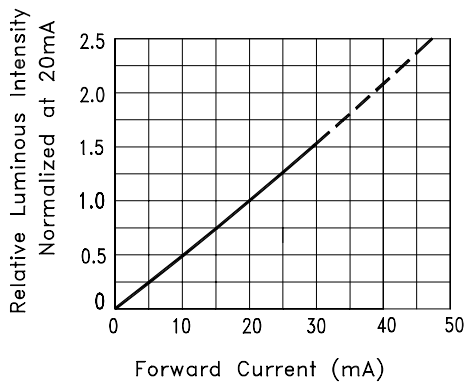


Fig.4 Relative Luminous Intensity vs. Forward Current

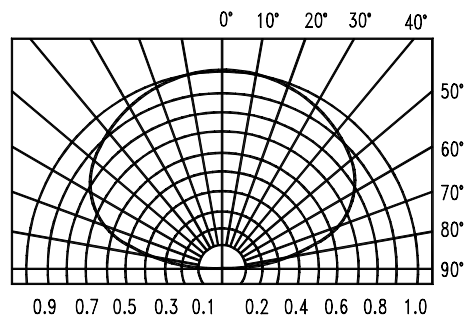


Fig.5 Spatial Distribution