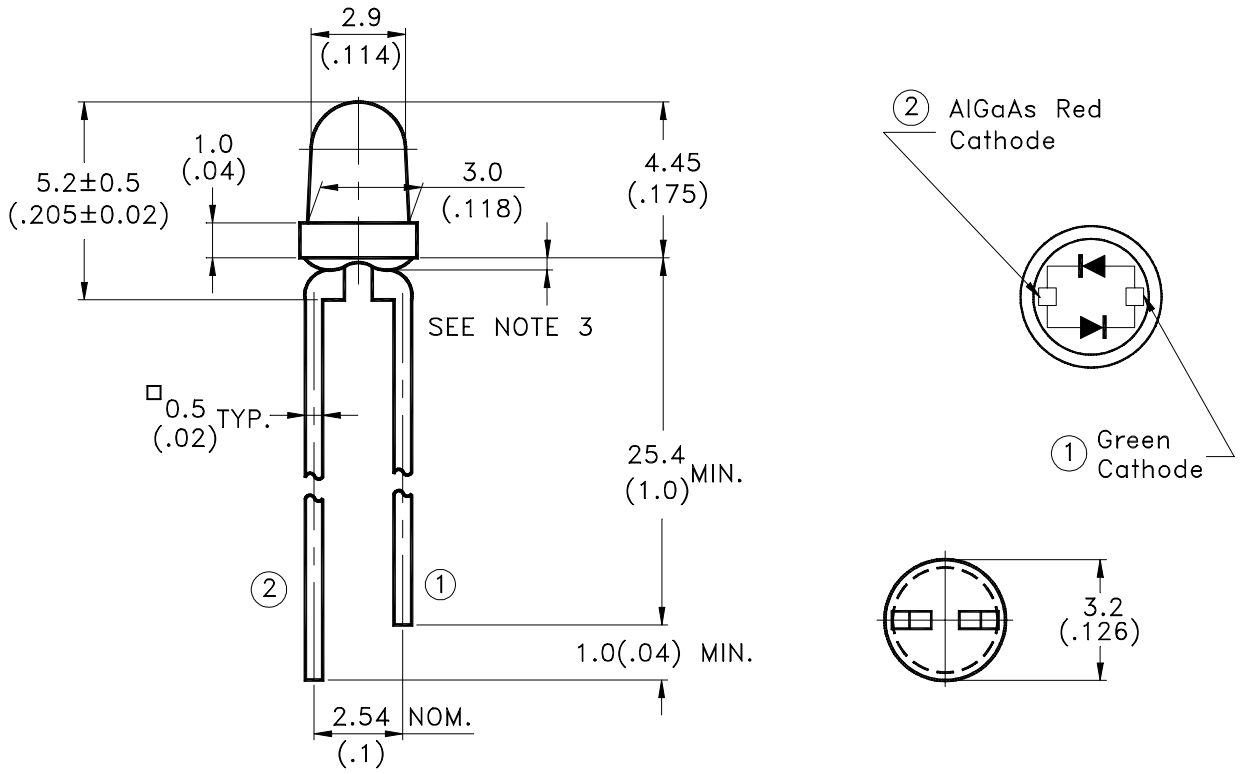
Features

* AlGaAs 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 Dimensions



Part No.	Lens	Source Color
LTL-14AWJ	White Diffused	AlGaAs Red / Green

NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm(.010") 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 T_A=25℃

Parameter	AlGaAs Red	Green	Unit
Power Dissipation	100	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	120	mA
Continuous Forward Current	40	30	mA
Derating Linear From 50℃	0.5	0.4	mA/℃
Operating Temperature Range	-55℃ to + 100℃		
Storage Temperature Range	-55℃ to + 100℃		
Lead Soldering Temperature [1.6mm(.063") From Body]	260℃ for 5 Seconds		

Electrical Optical Characteristics at T_A=25℃

Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	AlGaAs Red Green	3.7 1.1	12.6 3.7		mcd	I_F = 20mA I_F = 20mA Note 1,4
Viewing Angle	$2\theta_{1/2}$	AlGaAs Red Green		200 200		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λ p	AlGaAs Red Green		660 565		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ d	AlGaAs Red Green		638 569		nm	Note 3
Spectral Line Half-Width	$\Delta\lambda$	AlGaAs Red Green		20 30		nm	
Forward Voltage	V_F	AlGaAs Red Green		1.8 2.1	2.4 2.6	V	I_F = 20mA I_F = 20mA
Reverse Current	I_R	AlGaAs Red Green			100 100	μA	V_R = 4V V_R = 5V Note 5
Capacitance	C	AlGaAs Red Green		30 35		pF	V_F = 0 , f = 1MHz

Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission International De L'Eclairage) eye-response curve.

2. $\theta_{1/2}$ 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.

4. The Iv guarantee should be added ±15%.

5. Reverse current is controlled by dice source.

Typical Electrical / Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

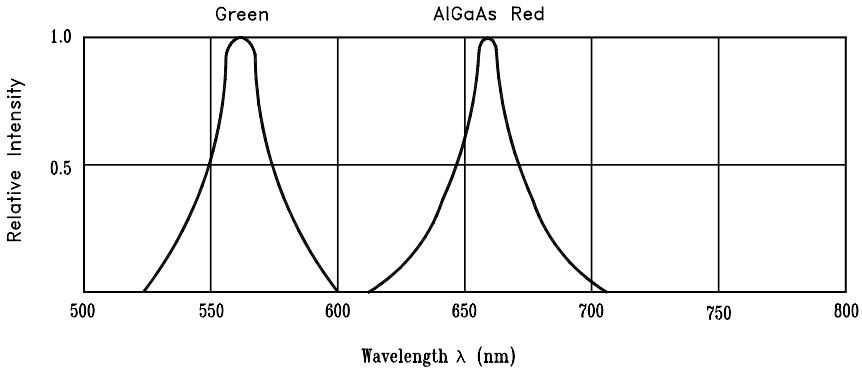


Fig.1 Relative Intensity vs. Wavelength

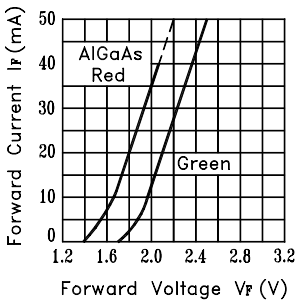


Fig.2 Forward Current vs. Forward Voltage

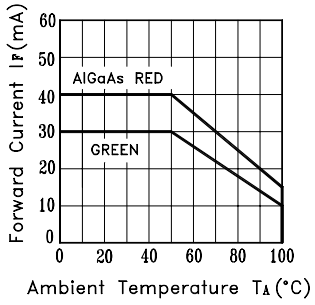


Fig.3 Forward Current Derating Curve

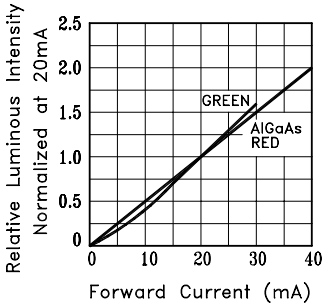


Fig.4 Relative Luminous Intensity vs. Forward Current

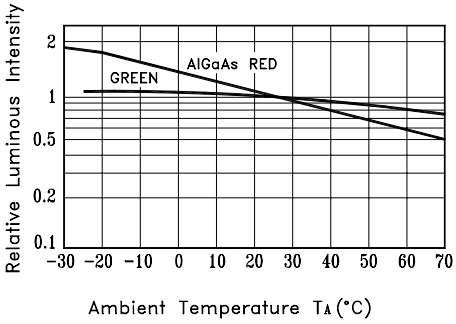


Fig.5 Luminous Intensity vs. Ambient Temperature

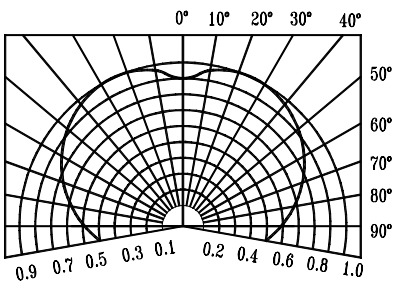


Fig.6 Spatial Distribution