



Through Hole Lamp Product Data Sheet LTL-14AWJ

Spec No.: DS-20-92-0309

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Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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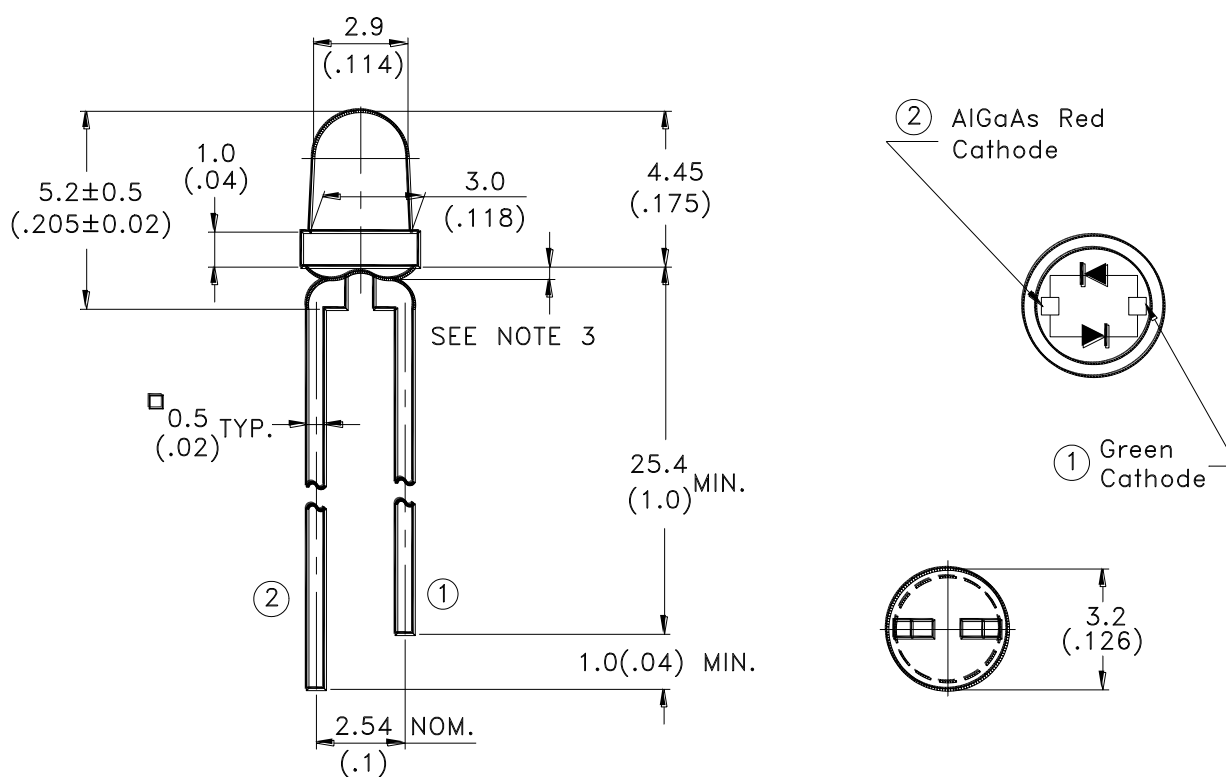
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<http://www.liteon.com/opto>

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 $\pm 0.25\text{mm}(.010")$ 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.



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Absolute Maximum Ratings at TA=25°C

| 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°C | 0.5 | 0.4 | mA/°C |
| Operating Temperature Range | -55°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 TA=25°C

| Parameter | Symbol | Color | Min. | Typ. | Max. | Unit | Test Condition |
|--------------------------|-------------------|---------------------|------------|-------------|------------|------|--|
| Luminous Intensity | I _v | AlGaAs Red Green | 3.7 1.1 | 12.6 3.7 | | mcd | I _F = 20mA I _F = 20mA Note 1,4 |
| Viewing Angle | 2θ _{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 | Δλ | 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. 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.
4. The I_v guarantee should be added ±15%.
5. Reverse current is controlled by dice source.

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

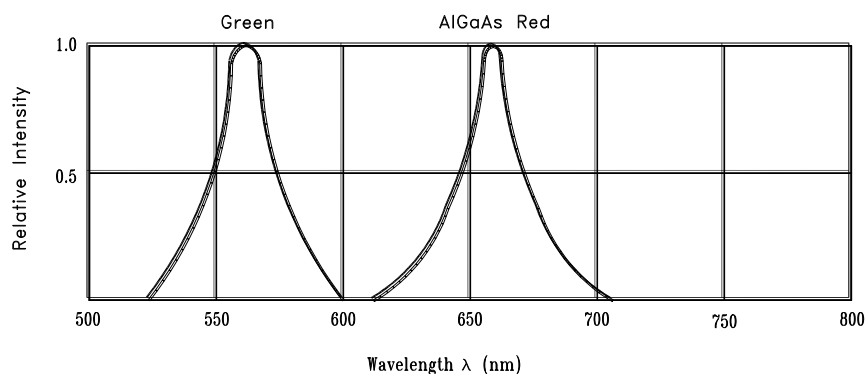


Fig.1 Relative Intensity vs. Wavelength

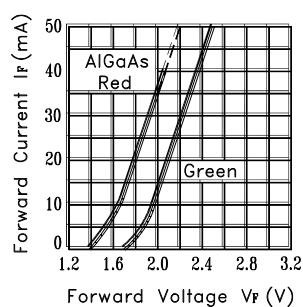


Fig.2 Forward Current vs. Forward Voltage

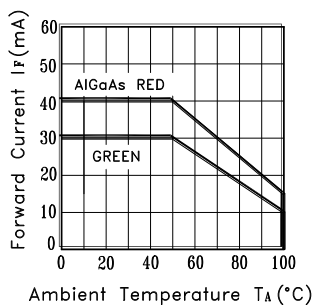


Fig.3 Forward Current Derating Curve

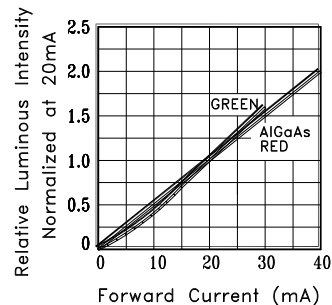


Fig.4 Relative Luminous Intensity vs. Forward Current

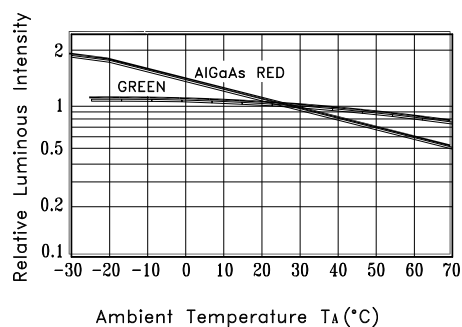


Fig.5 Luminous Intensity vs. Ambient Temperature

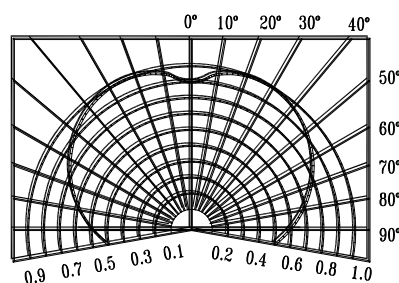


Fig.6 Spatial Distribution