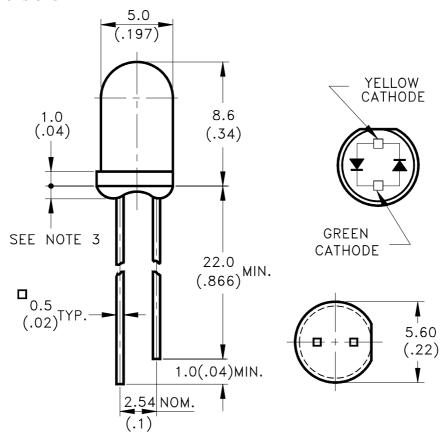
# LITEON LITE-ON ELECTRONICS, INC.

### Property of Lite-On Only

#### **Features**

- \* Green and Yellow chips are matched for uniform. light output.
- \* T-13/4 type package.
- \* Long life solid state reliability.
- \* Low power consumption.
- \* I.C compatible.

### **Package Dimensions**



| Part No.  | Lens           | Source Color   |
|-----------|----------------|----------------|
| LTL-298DJ | White Diffused | Green / Yellow |

#### NOTES:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm$  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.

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# LITEON ELECTRONICS, INC.

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# Absolute Maximum Ratings at TA=25℃

| Parameter   | Green               | Yellow | Unit  |
|---|---------------------|--------|-------|
| Power Dissipation   | 100                 | 60     | mW    |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | 120                 | 80     | mA    |
| Continuous Forward Current                                | 30                  | 20     | mA    |
| Derating Linear From 50°C                                 | 0.4                 | 0.25   | 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 |        |       |

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# LITEON LITE-ON ELECTRONICS, INC.

### Property of Lite-On Only

# Electrical Optical Characteristics at TA=25°C

| Parameter                | Symbol  | Color           | Min.       | Тур.       | Max.       | Unit | Test Condition                       |
|--------------------------|---------|-----------------|------------|------------|------------|------|--------------------------------------|
| Luminous Intensity       | Iv      | Green<br>Yellow | 5.6<br>3.7 | 19<br>12.6 |            | mcd  | $I_F = 20 mA$ $I_F = 20 mA$ Note 1,4 |
| Viewing Angle            | 2 θ 1/2 | Green<br>Yellow |            | 50<br>50   |            | deg  | Note 2 (Fig.6)                       |
| Peak Emission Wavelength | λp      | Green<br>Yellow |            | 565<br>585 |            | nm   | Measurement @Peak (Fig.1)            |
| Dominant Wavelength      | λd      | Green<br>Yellow |            | 569<br>588 |            | nm   | Note 3                               |
| Spectral Line Half-Width | Δλ      | Green<br>Yellow |            | 30<br>35   |            | nm   |                                      |
| Forward Voltage          | VF      | Green<br>Yellow |            | 2.1<br>2.1 | 2.6<br>2.6 | V    | $I_F = 20mA$ $I_F = 20mA$            |
| Reverse Current          | $I_R$   | Green<br>Yellow |            |            | 100        | μΑ   | $V_R = 5V$                           |
| Capacitance              | С       | Green<br>Yellow |            | 35<br>15   |            | 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,  $\lambda_d$  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  $\pm$  15%.
- 5. Reverse current is controlled by dice source.

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|---------------------|--------------|
|---------------------|--------------|

# LITE-ON ELECTRONICS, INC.

Property of Lite-On Only

## Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

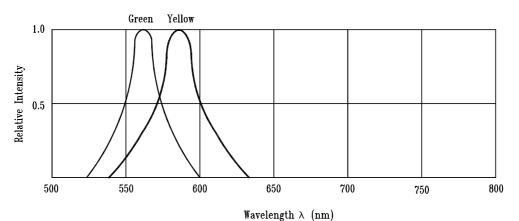


Fig.1 Relative Intensity vs. Wavelength

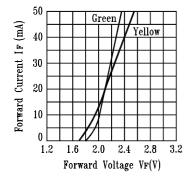


Fig.2 Forward Current vs.
Forward Voltage

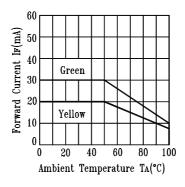


Fig.3 Forward Current
Derating Curve

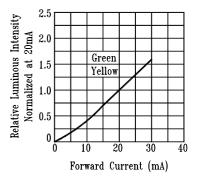


Fig.4 Relative Luminous Intensity vs. Forward Current

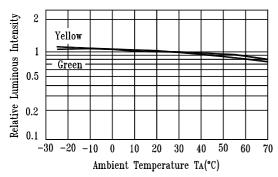


Fig.5 Luminous Intensity vs.
Ambient Temperature

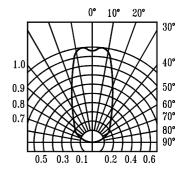


Fig.6 Spatial Distribution

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