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Through Hole Lamp Product Data Sheet
LTL-4234-012
Spec No.: DS-20-97-0051
Effective Date: 08/03/2000
Revision: -

## LITE-ON DCC

## RELEASE

BNS-OD-FC001/A4

## LITEONI

## Features

* High Intensity.
* Popular T-1 3/4 diameter Package.
* Selected minimun intensities.
* General purpose leads.
* Reliable and rugged.


## Package Dimensions



| Part No. | Lens | Source Color |
| :---: | :---: | :---: |
| LTL-4234-012 | Transparent Green | Green |

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25 \mathrm{~mm}\left(.010^{\prime \prime}\right)$ unless otherwise noted.
3. Protruded resin under flange is $1.0 \mathrm{~mm}(.04$ ") 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 $\mathbf{T A}=\mathbf{2 5}{ }^{\circ} \mathrm{C}$

| Parameter | Maximum Rating | Unit |
| :--- | :---: | :---: |
| Power Dissipation | 100 | mW |
| Peak Forward Current <br> $(1 / 10$ Duty Cycle, 0.1 ms Pulse Width $)$ | 120 | mA |
| Continuous Forward Current | 30 | mA |
| Derating Linear From $50^{\circ} \mathrm{C}$ | 0.4 | $\mathrm{~mA} /{ }^{\circ} \mathrm{C}$ |
| Reverse Voltage | 5 | V |
| Operating Temperature Range | $-55^{\circ} \mathrm{C}$ to $+100^{\circ} \mathrm{C}$ |  |
| Storage Temperature Range | $-55^{\circ} \mathrm{C}$ to $+100^{\circ} \mathrm{C}$ |  |
| Lead Soldering Temperature <br> $[1.6 \mathrm{~mm}(.063 ")$ From Body] | $260^{\circ} \mathrm{C}$ for 5 Seconds |  |

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## Electrical / Optical Characteristics at $\mathbf{T A}=\mathbf{2 5}{ }^{\circ} \mathrm{C}$

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
| :--- | :---: | :---: | :---: | :---: | :--- | :--- |
| Luminous Intensity | Iv | 19 | 60 |  | mcd | IF $=10 \mathrm{~mA}$ <br> Note 1,4 |
| Viewing Angle | $2 \theta_{1 / 2}$ |  | 16 |  | deg | Note 2 (Fig.6) |
| Peak Emission Wavelength | $\lambda_{\mathrm{P}}$ |  | 565 |  | nm | Measurement <br> $@$ Peak (Fig.1) |
| Dominant Wavelength | $\lambda_{\mathrm{d}}$ |  | 569 |  | nm | Note 3 |
| Spectral Line Half-Width | $\Delta \lambda$ |  | 30 |  | nm |  |
| Forward Voltage | $\mathrm{V}_{\mathrm{F}}$ |  | 2.1 | 2.6 | V | $\mathrm{IF}=20 \mathrm{~mA}$ |
| Reverse Current | $\mathrm{IR}_{\mathrm{R}}$ |  |  | 100 | $\mu \mathrm{~A}$ | $\mathrm{~V}_{\mathrm{R}}=5 \mathrm{~V}$ |
| Capacitance | C |  | 35 |  | pF | $\mathrm{V}_{\mathrm{F}}=0, \mathrm{f}=1 \mathrm{MHz}$ |

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, $\lambda_{\mathrm{d}}$ 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 $\pm 15 \%$.

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## Typical Electrical / Optical Characteristics Curves

$\left(25^{\circ} \mathrm{C}\right.$ 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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## Features

* Compatible with radial lead automatic insertion equipment.
* Most radial lead plastic lead lamps available packaged in tape and reel.
* $2.54 \mathrm{~mm}(0.1 ")$ straight lead spacing available.
* Reel packaging simplifies handling and testing.

Package Dimensions


| Item | Symbol | Specification |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Minimum |  | Maximum |  |
|  |  | mm | inch | mm | inch |
| Tape Feed Hole Diameter | D | 3.8 | 0.149 | 4.2 | 0.165 |
| Component Lead Pitch | F | 2.3 | 0.091 | 3.0 | 0.118 |
| Front to Rear Deflection | $\triangle \mathrm{H}$ | -- | -- | 2.0 | 0.078 |
| Feed Hole to Bottom of Component | H1 | 21.5 | 0.846 | 22.5 | 0.886 |
| Feed Hole to Overall Component Height | H2 | 29.9 | 1. 177 | 31.3 | 1.232 |
| Lead Length After Component Height | L | W0 |  | 11.0 | 0.433 |
| Feed Hole Pitch | P | 12.4 | 0.488 | 13.0 | 0.511 |
| Lead Location | P1 | 4.4 | 0.173 | 5.8 | 0.228 |
| Center of Component Location | P2 | 5.05 | 0.198 | 7.65 | 0.301 |
| Total Tape Thickness | T | -- | -- | 0.90 | 0.035 |
| Feed Hole Location | W0 | 8.5 | 0.334 | 9.75 | 0.384 |
| Adhesive Tape Width | W1 | 12.5 | 0.492 | 13.5 | 0.531 |
| Adhesive Tape Position | W2 | 0 | 0 | 3.0 | 0.118 |
| Tape Width | W3 | 17.5 | 0.689 | 19.0 | 0.748 |

