



**Spec No.: DS-20-93-0115** Effective Date: 08/01/2000

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4



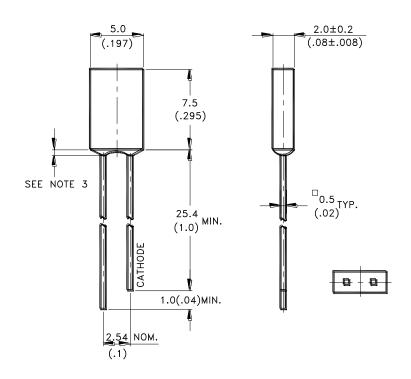
# LITEON ELECTRONICS, INC.

### Property of Lite-On Only

#### **Features**

- \* Low power consumption.
- \* Most suitable for use like level indicator.
- \* Excellent uniformity of light emittance.
- \* Long life solid state reliability.
- \* I.C. compatible.

## **Package Dimensions**



Part No.	Lens	Source Color		
LTL-433P	Red Diffused	Bright Red		

#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25$ 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.

Part No.: LTL-433P Page: 1 of

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## Absolute Maximum Ratings at TA=25℃

Parameter	Maximum Rating	Unit	
Power Dissipation	40	mW	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA	
Continuous Forward Current	15	mA	
Derating Linear From 50°C	0.2	mA/°C	
Reverse Voltage	5	V	
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		

2 Part No.: LTL-433P Page: of 4



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## Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	Iv	0.4	1.1		mcd	I <sub>F</sub> = 10mA Note 1,4
Viewing Angle	2 θ 1/2		140		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λр		697		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λd		657		nm	Note 3
Spectral Line Half-Width	Δλ		90		nm	
Forward Voltage	$V_{\mathrm{F}}$		2.1	2.6	V	$I_F = 20 \text{mA}$
Reverse Current	$I_{ m R}$			100	μΑ	$V_R = 5V$
Capacitance	С		55		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  $\pm 15\%$ .

Part No.: LTL-433P Page: of 4

## Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

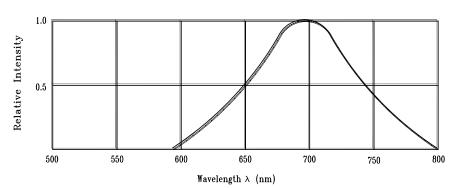
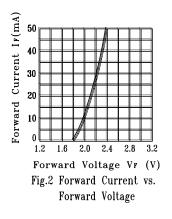
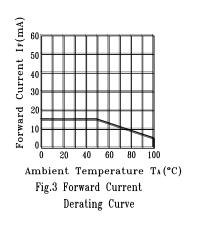
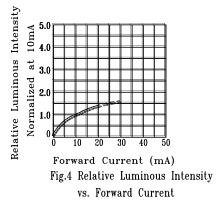
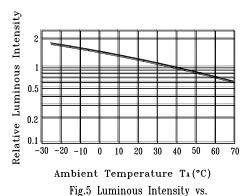


Fig.1 Relative Intensity vs. Wavelength









Ambient Temperature

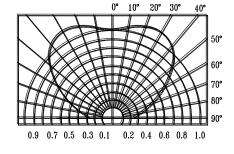


Fig.6 Spatial Distribution

4

Part No.: LTL-433P Page: 4 of

## **Mouser Electronics**

**Authorized Distributor** 

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Lite-On: