



# LED Display

## Product Data Sheet

### LTL-2300HR

Spec No.: DS-30-98-389

Effective Date: 05/08/2001

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

**FEATURES**

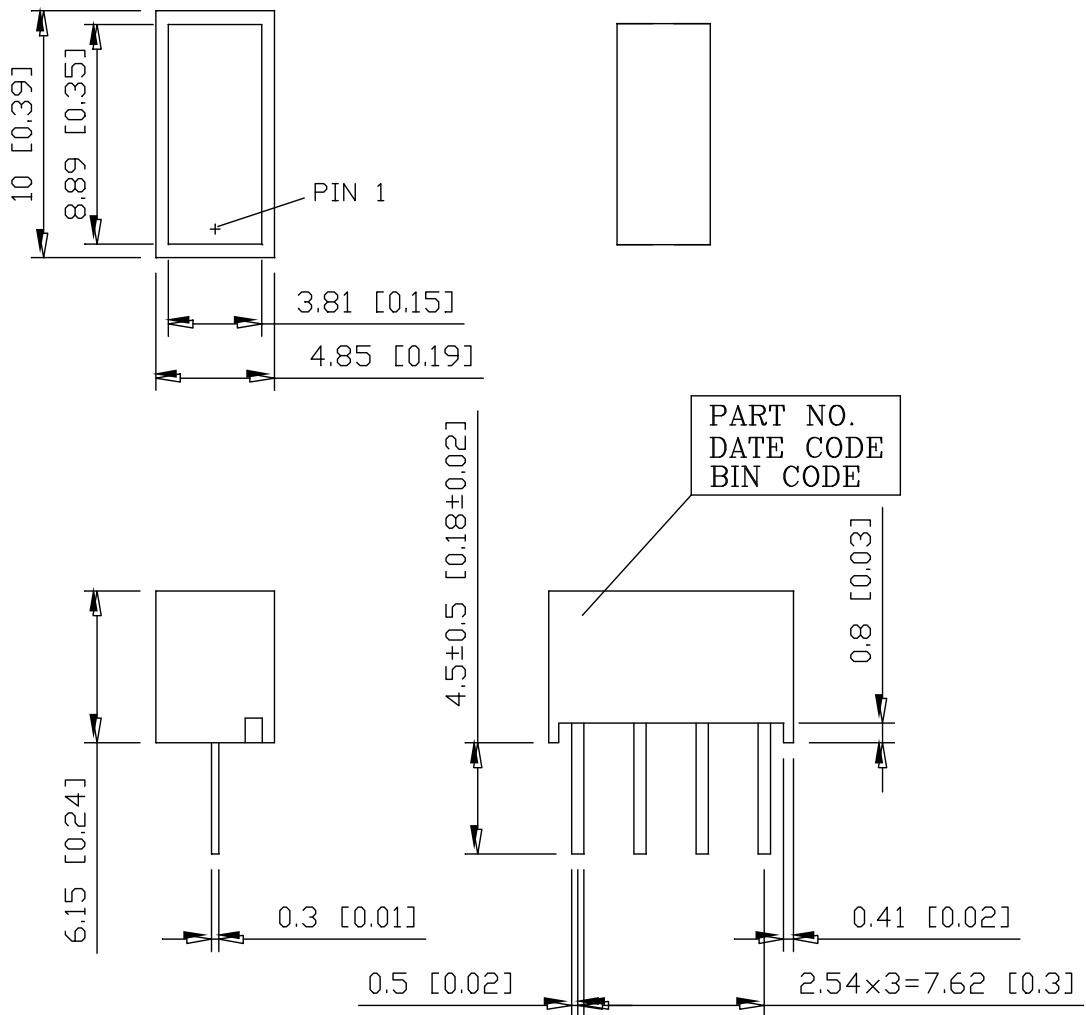
- \* LARGE, BRIGHT, UNIFORM LIGHT EMITTING AREAS.
- \* LOW POWER REQUIREMENT.
- \* EXCELLENT ON-OFF CONTRAST.
- \* CAN BE USED WITH PANEL AND LEGEND MOUNT.
- \* WIDE VIEWING ANGLE.
- \* SOLID STATE RELIABILITY.
- \* CATEGORIZED FOR LIGHT OUTPUT.

**DESCRIPTION**

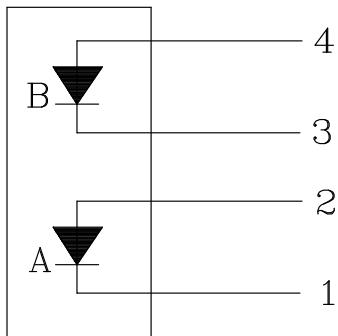
The LTL-2300HR is a rectangular light source display that is designed for a variety of applications where a large bright source of light is required. This device utilizes high efficiency red LED chips that are made from GaAsP on a transparent GaP substrate, and has white bar color.

**DEVICE**

<b>PART NO.</b>	<b>DESCRIPTION</b>
Hi.-Eff. Red	Universal
LTL-2300HR	Rectangular Bar

**PACKAGE DIMENSIONS**

NOTES: All dimensions are in millimeters. Tolerances are  $\pm 0.25$ -mm (0.01") unless otherwise noted.

**INTERNAL CIRCUIT DIAGRAM**

**PIN CONNECTION**

No.	CONNECTION
1	CATHODE A
2	ANODE A
3	CATHODE B
4	ANODE B

**ABSOLUTE MAXIMUM RATING AT  $T_A=25^\circ\text{C}$** 

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Bar	75	mW
Peak Forward Current Per Bar ( 1/10 Duty Cycle, 0.1ms Pulse Width )	100	mA
Continuous Forward Current Per Bar	25	mA
Derating Linear From $25^\circ\text{C}$ Per Bar	0.33	mA/ $^\circ\text{C}$
Reverse Voltage Per Bar	5	V
Operating Temperature Range	$-35^\circ\text{C}$ to $+85^\circ\text{C}$	
Storage Temperature Range	$-35^\circ\text{C}$ to $+85^\circ\text{C}$	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at $260^\circ\text{C}$		

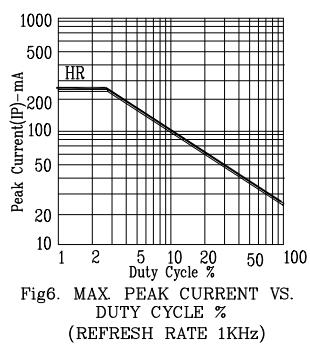
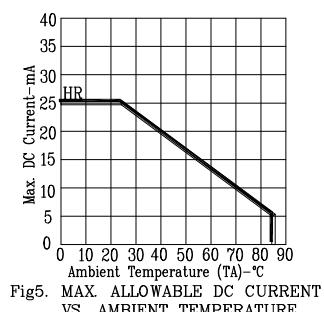
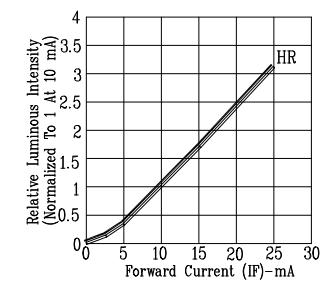
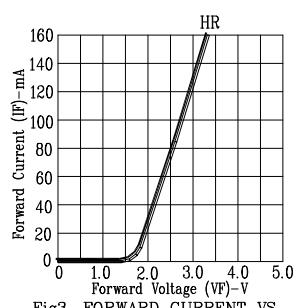
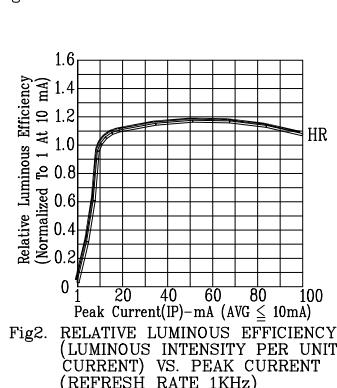
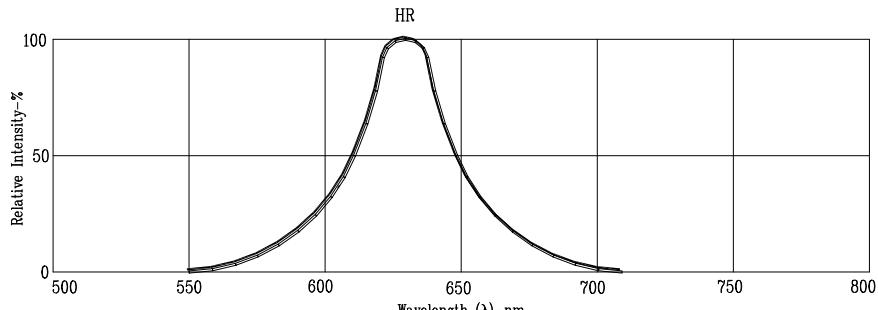
**ELECTRICAL / OPTICAL CHARACTERISTICS AT  $T_A=25^\circ\text{C}$** 

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	$I_v$	1.4	4.2		mcd	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_p$		635		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		40		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		623		nm	$I_F=20\text{mA}$
Forward Voltage. Per Bar	$V_F$		2	2.6	V	$I_F=20\text{mA}$
Reverse Current, Per Bar	$I_R$			100	$\mu\text{A}$	$V_R=5\text{V}$

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

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE: HR=HI-EFF.RED