



LED Display Product Data Sheet LTL-2300JD

Spec No.: DS30-2001-352

Effective Date: 04/03/2002

Revision: A

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.

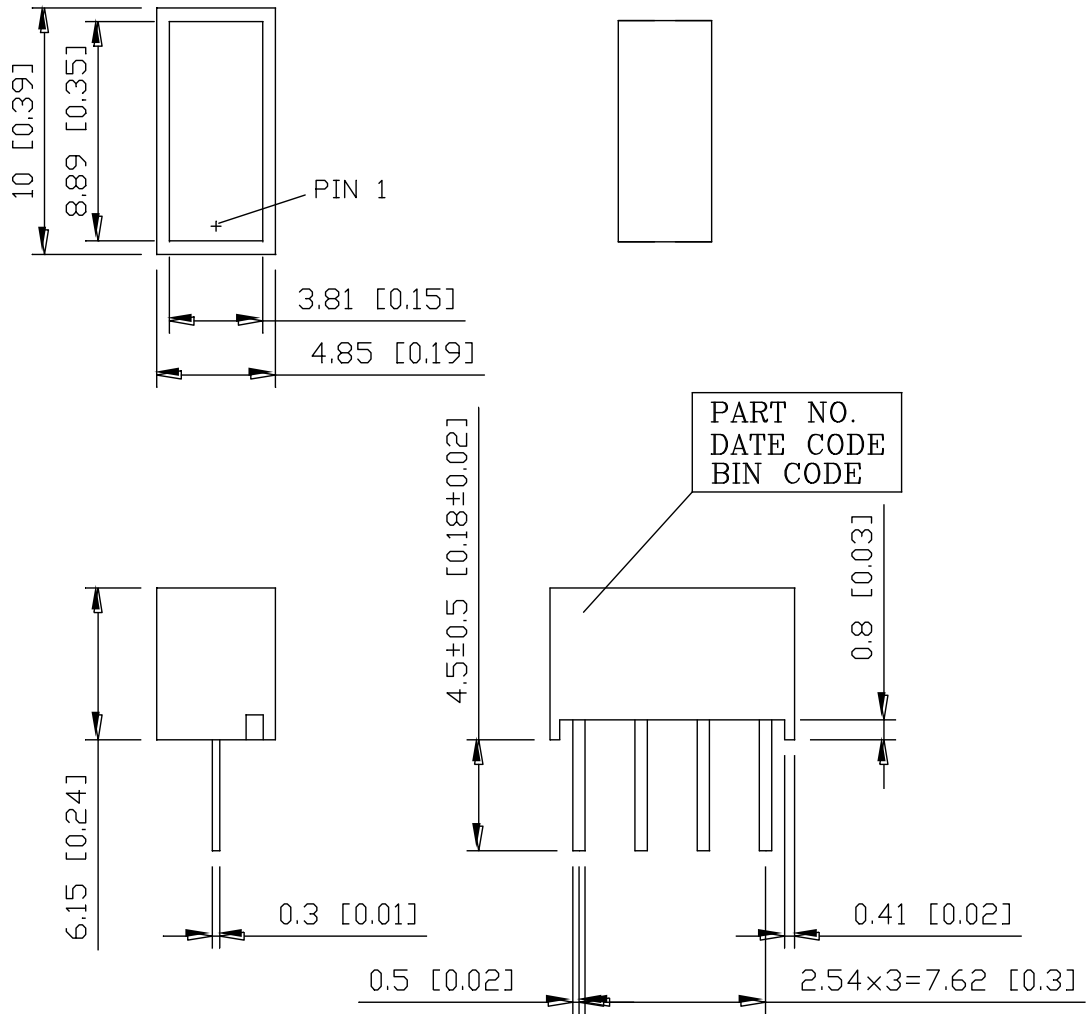
DESCRIPTION

The LTL-2300JD 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 AlInGaP Hyper Red LED chips, which are made from AlInGaP on a non-transparent GaAs substrate, and has white bar color.

DEVICE

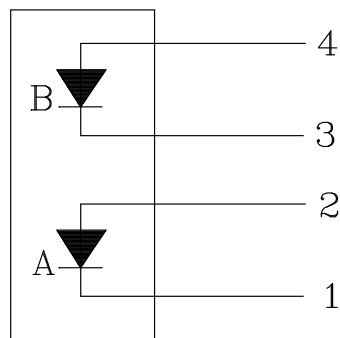
PART NO.	DESCRIPTION
AlInGaP Hyper Red	Universal
LTL-2300JD	Rectangular Bar

PACKAGE DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerances are ± 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 Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Bar	70	mW
Peak Forward Current Per Bar (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current Per Bar	25	mA
Derating Linear From 25°C Per Bar	0.28	mA/°C
Reverse Voltage Per Bar	5	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	320	950		ucd	I _F =1mA
Peak Emission Wavelength	λ _p		650		nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d		639		nm	I _F =20mA
Forward Voltage. Per Bar	V _F		2.0	2.6	V	I _F =20mA
Reverse Current, Per Bar	I _R			100	μA	V _R =5V

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

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

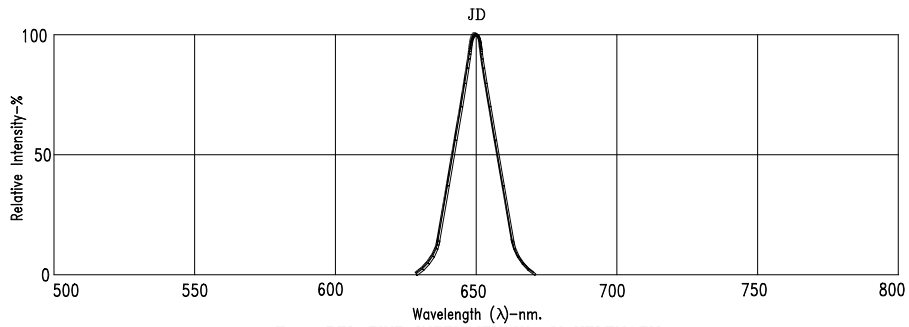


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

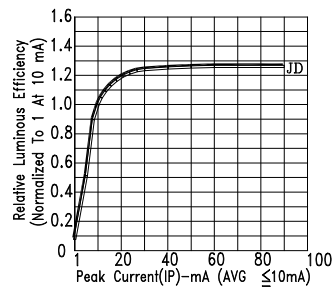


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT

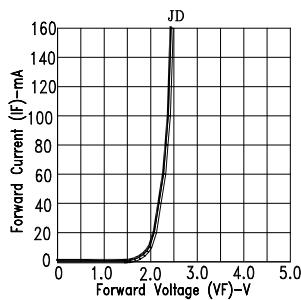


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

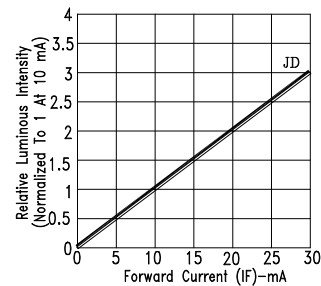


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

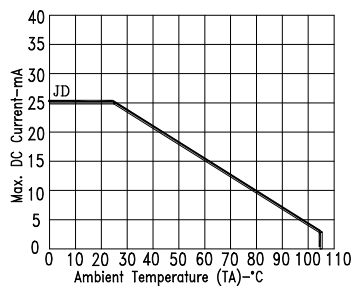


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

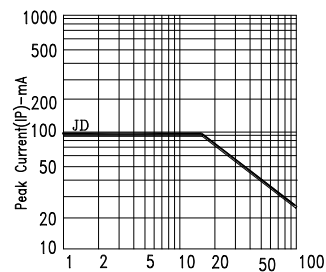


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE : JD=AlInGaP HYPER RED