



**Spec No.: DS30-2008-0119** Effective Date: 07/03/2010

Revision: B

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

## Property of Lite-On Only

### **FEATURES**

- \*0.28 inch (7.0 mm) DIGIT HEIGHT.
- \*CONTINUOUS UNIFORM SEGMENTS.
- \*LOW POWER REQUIREMENT.
- \*EXCELLENT CHARACTERS APPEARANCE.
- \*HIGH BRIGHTNESS & HIGH CONTRAST.
- \*WIDE VIEWING ANGLE.
- \* SOLID STATE RELIABILITY.
- \*CATEGORIZED FOR LUMINOUS INTENSITY.
- \*LEAD-FREE PACKAGE (ACCORDING TO ROHS).

### **DESCRIPTION**

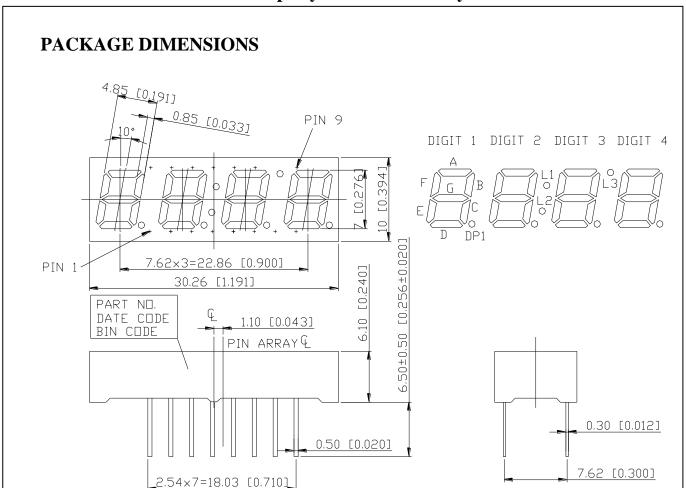
The LTC-2623JD-01 is a 0.28 inch (7.0 mm) digit height quadruple digit seven-segment display. This device utilizes AlInGaP Hyper Red LED chips, which are made from AlInGaP on a transparent GaAs substrate, and has a gray face and white segments. This low current seven-segment display is designed to perform under low power consumption. It is tested and selected for it's excellent low current characteristics. It can be driven in low current condition and the segments are matched. This driving current as low as 1mA per segment is applicable.

### **DEVICE**

PART NO.	DESCRIPTION				
AlInGaP Hyper Red	Multiplex Common Anode				
LTC-2623JD-01	Rt. Hand Decimal				

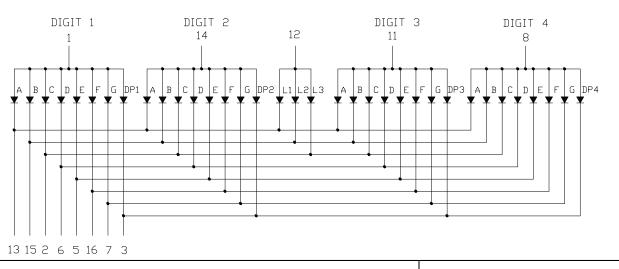
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Property of Lite-On Only



NOTES: 1.All dimensions are in millimeters. Tolerances are  $\pm$  0.25 mm (0.01") unless otherwise noted. 2.Pin tip's shift tolerance is  $\pm$  0.4 mm.

## INTERNAL CIRCUIT DIAGRAM



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**Property of Lite-On Only** 

## PIN CONNECTION

NO	CONNECTION
1	COMMON ANODE DIGIT 1
2	CATHODE C,L3
3	CATHODE DP
4	NO CONNECTION
5	CATHODE E
6	CATHODE D
7	CATHODE G
8	COMMON ANODE DIGIT 4
9	NO CONNECTION
10	NO PIN
11	COMMON ANODE DIGIT 3
12	COMMON ANODE L1, L2, L3
13	CATHODE A,L1
14	COMMON ANODE DIGIT 2
15	CATHODE B,L2
16	CATHODE F

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Property of Lite-On Only

## ABSOLUTE MAXIMUM RATING AT Ta=25°C

MAXIMUM RATING	UNIT
70	mW
90	mA
25	mA
0.28	mA/°C
5	V
$-35^{\circ}$ C to $+105^{\circ}$ C	
$-35^{\circ}$ C to $+105^{\circ}$ C	·
	70 90 25 0.28 5 -35°C to +105°C

Solder Conditions: 1/16 inch below seating plane for 3 seconds at 260°C,

or temperature of unit (during assembly) not over max. temperature rating above

## ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	320	850		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		650		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		636		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	VF		2.1	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	IR			100	μΑ	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio (Similar Light Area)	Iv-m			2:1		I <sub>F</sub> =1mA

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

## **BIN TABLE**

## BIN TEBLE 2 FOR LUMINOUS INTENSITY

BIN GRADE	F	G	Н	J	K
RANGE(ucd)IF=10mA	321-500	501-800	801-1300	1301-2100	2101-3400

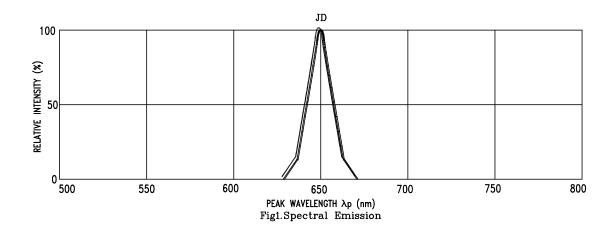
The Luminous Intensity Tolerance ±15percentage

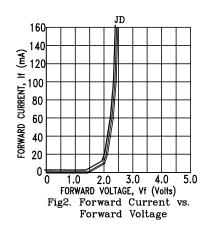
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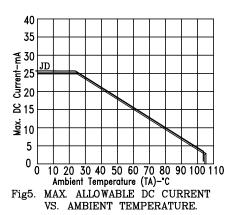
Property of Lite-On Only

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)







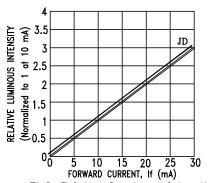
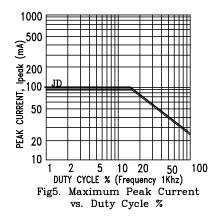


Fig3. Relative Luminous Intensity vs. DC Forward Current



NOTE: JD=AlInGaP HYPER RED

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