



LED Display

Product Data Sheet

LTD-2701JD-HB

Spec No.: DS30-2012-0033

Effective Date: 07/31/2012

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY**LTD-2701JD-HB**
DATA SHEET

Rev	Description	By
01	RDR Original Spec	Phanomkorn J. January 4, 2012

Spec No.	
Date	January 4, 2012
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Customer Approval	
Date	

FEATURES

- * 0.28 inch (7 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)

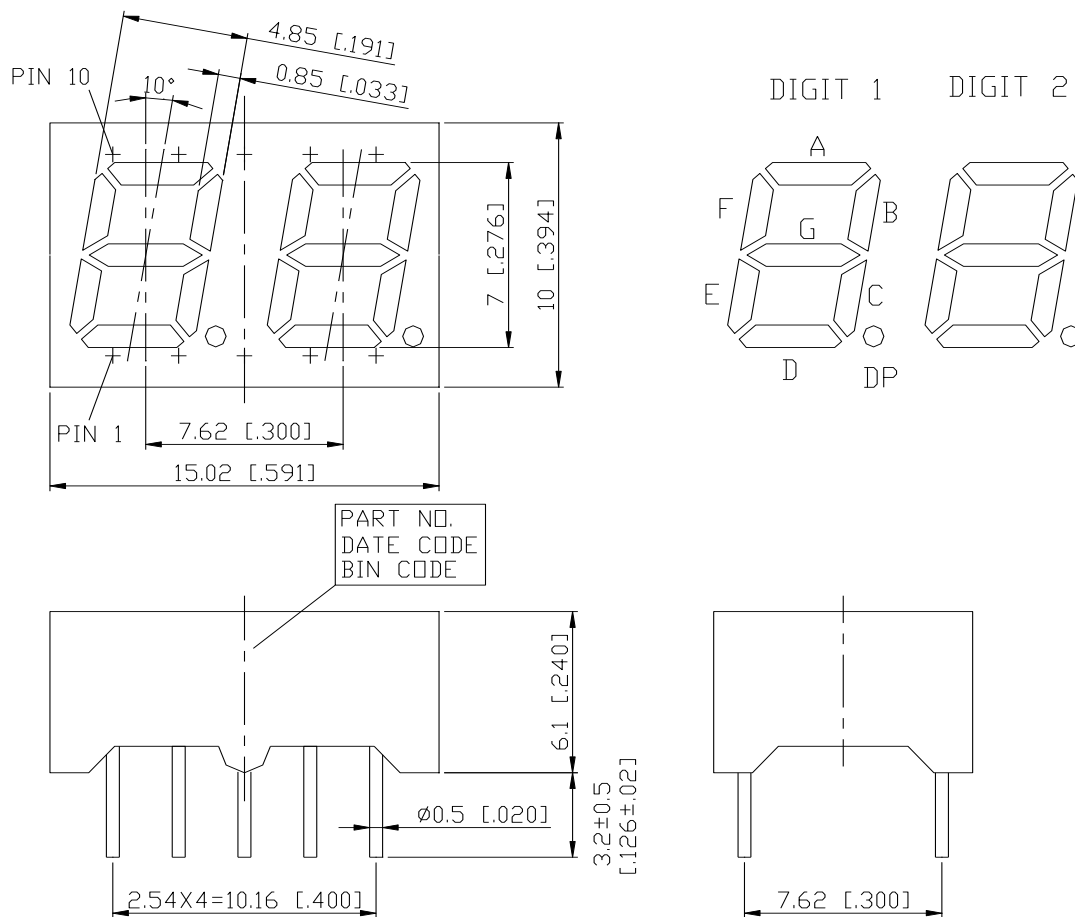
DESCRIPTION

The LTD-2701JD-HB is a 0.28 inch (7 mm) digit height dual digit seven-segment display. This device utilizes AlInGaP Hyper Red LED chips, which are made from AlInGaP on a non-transparent GaAs substrate. This display is built by special reflector material that can pass high-temperature soldering condition; the display has gray face and white segments.

DEVICE

PART NO.	DESCRIPTION
AlInGaP Hyper Red	Duplex Common Cathode Rt. Hand Decimal
LTD-2701JD-HB	

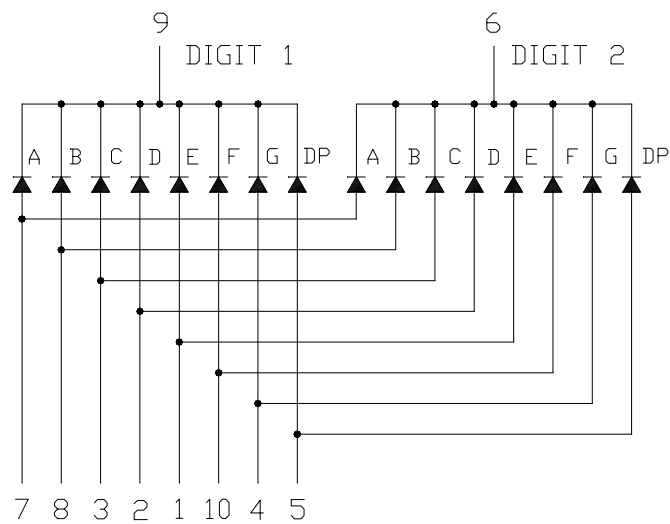
PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01") unless otherwise noted.
2. Pin tip's shift tolerance is ± 0.4 mm.
3. Foreign material on segment ≤ 10 mils
4. Ink contamination (surface) ≤ 20 mils
5. Bending $\leq 1/100$
6. Bubble in segment ≤ 10 mils

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

NO.	CONNECTION
1	ANODE E
2	ANODE D
3	ANODE C
4	ANODE G
5	ANODE DP
6	COMMON CATHODE (DIGIT 2)
7	ANODE A
8	ANODE B
9	COMMON CATHODE (DIGIT 1)
10	ANODE F

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25°C Per Segment	0.28	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +120°C	
Storage Temperature Range	-35°C to +120°C	
Soldering Conditions : 1/16 inch below seating plane for 5 seconds at 265 ⁰ C ±5 ⁰ C or of temperature unit (during assembly) not over max. temperature rating.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

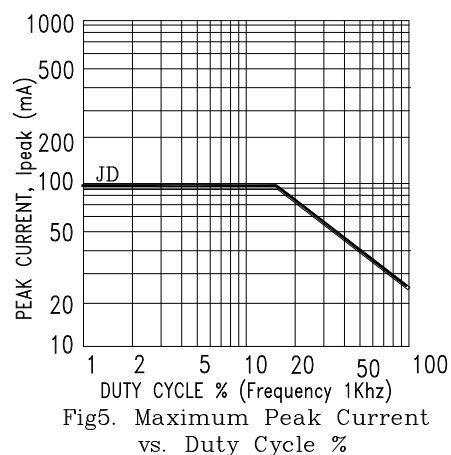
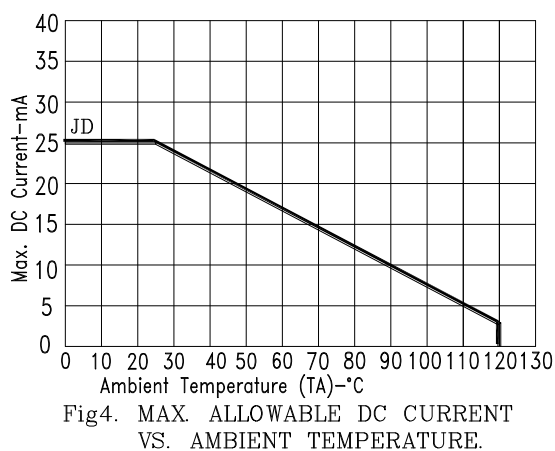
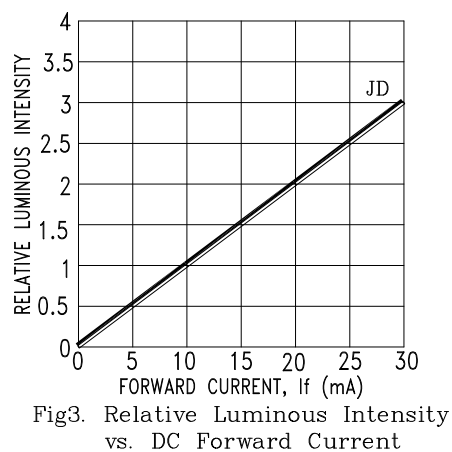
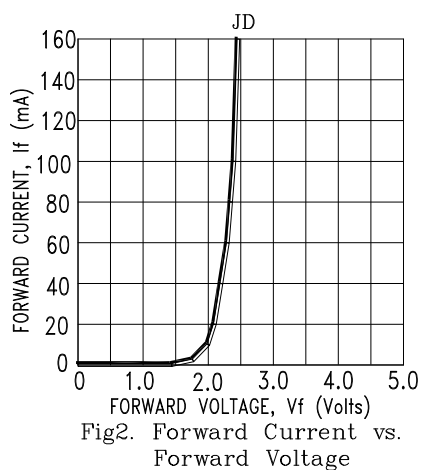
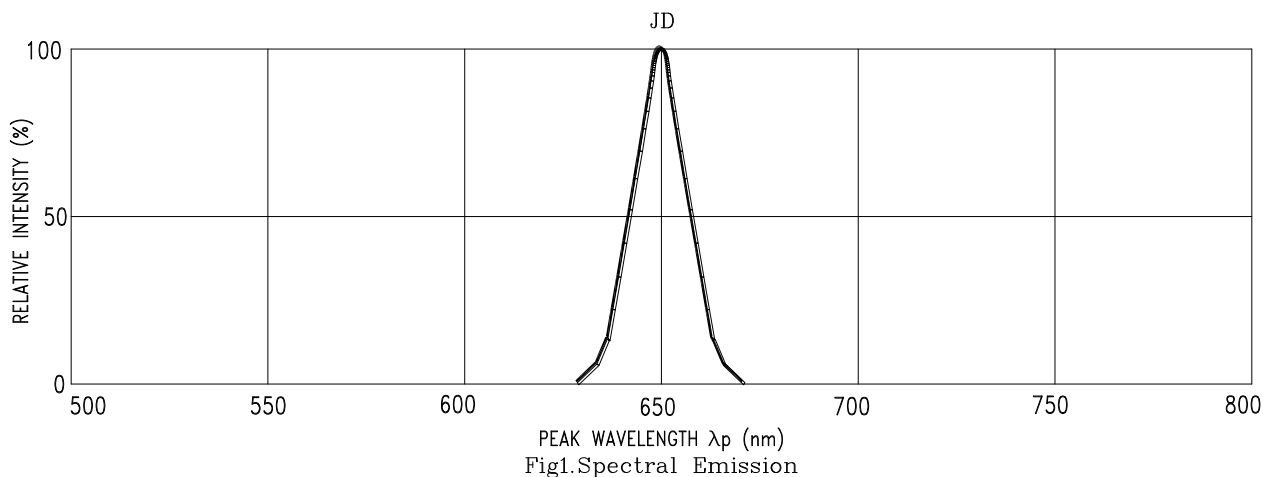
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	200	600		μcd	I _F =1mA
Peak Emission Wavelength	λ _p		650		nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d		639		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I _v -m			2:1		I _F =1mA

NOTES:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.
2. Cross talk specification $\leq 2.5\%$
3. Reverse voltage is only for IR test. It cannot continue to operate at this situation.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : JD=AlInGaP HYPER RED