



**LED Display**  
**Product Data Sheet**  
LTS-3861JD

Spec No. :DS30-2001-351  
Effective Date: 07/02/2019  
Revision: C

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**LED DISPLAY  
LTS-3861JD**

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<u>Rev</u>	<u>Description</u>	<u>By</u>	<u>Date</u> (DD/MM/YY)
01	Preliminary Spec	Meg Huang	07-05-2002
<b>Above data for PD and Customer tracking only</b>			
-	NPPR Received and Upload on system	Meg Huang	07-05-2002
A	Add dimension and recommend PCB hole	Anon B.	09-05-2019

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**1. Description**

The LTS-3861JD is a 0.3-inch (7.62-mm) digit height single digit low current seven-segment display. This device uses AlInGaP HYPER RED chips (AlInGaP epi on GaAs substrate). The display has a light gray Face and white segments.

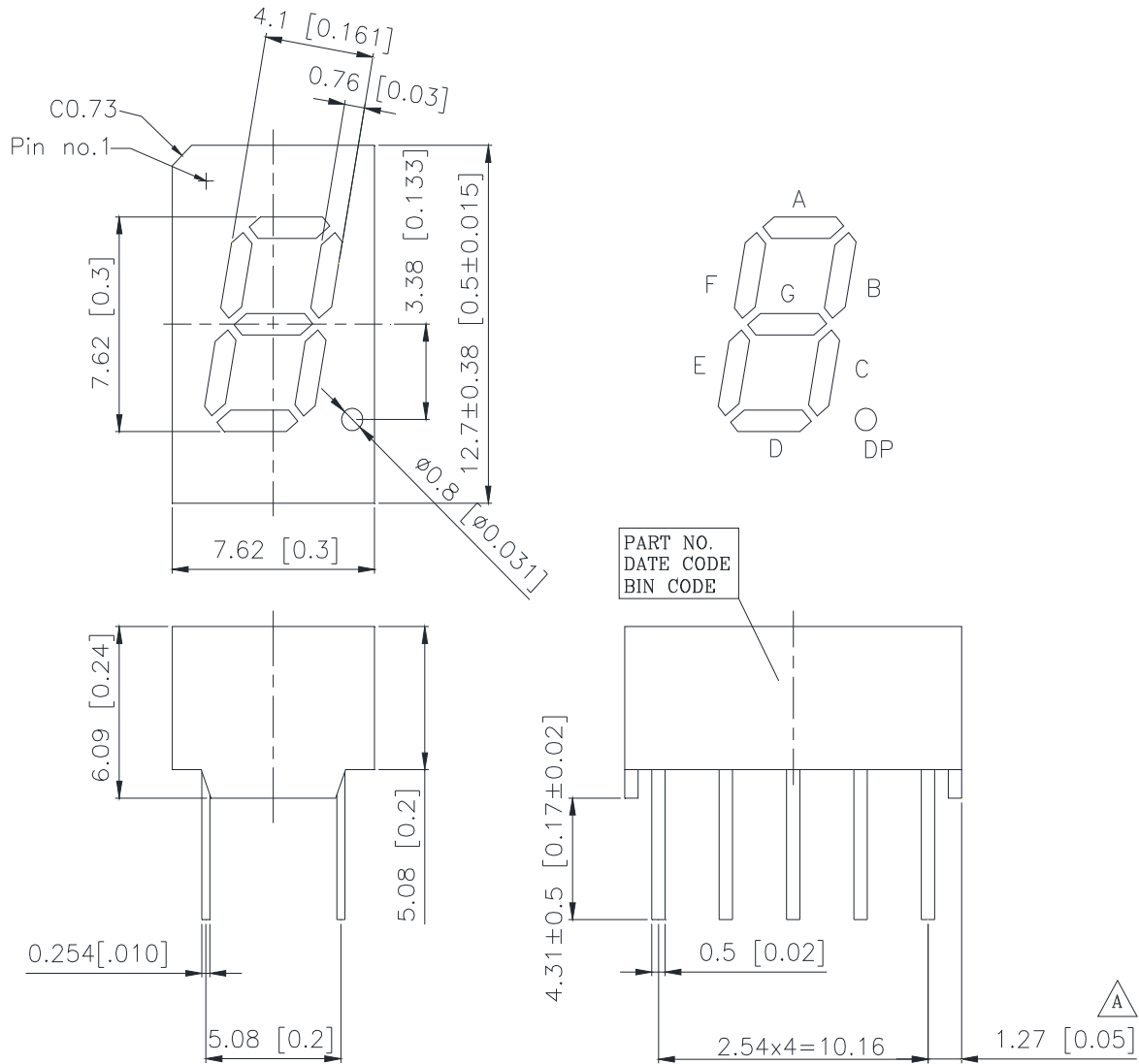
**1.1 Features**

- 0.30 inch (7.62 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)**

**1.2 Device**

Part No	Description
AllnGaP HYPER RED	Common anode
LTS-3861JD	Rt. Hand decimal

2. Package Dimensions

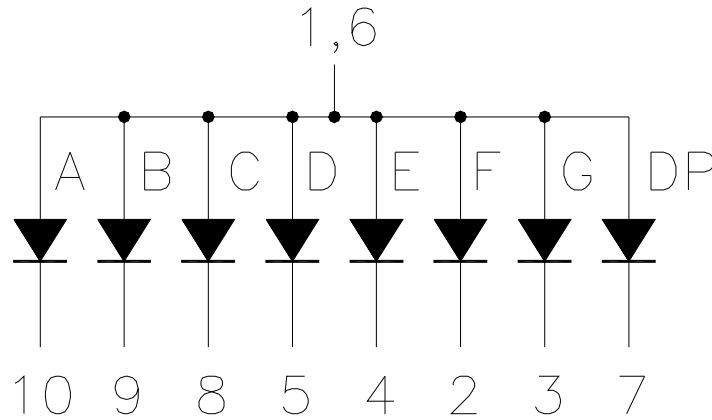


Notes :

1. All dimensions are in millimeters. Tolerances are  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
2. Foreign materials on segment  $\leq 10\text{mils}$ .
3. Bubble in segment  $\leq 10\text{mils}$ .
4. Bending  $\leq 1\%$  of reflector length.
5. Ink contamination (surface)  $\leq 20\text{mils}$ .
6. Pin tip's shift tolerance is  $\pm 0.40\text{ mm}$ .
7. Recommend the best pcb hole : diameter 1.10 mm

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**3. Internal Circuit Diagram**



**4. Pin Connection**

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

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**5. Rating and Characteristics**

**5.1. 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
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Solder Conditions: 1/16 inch below seating plane within 3 seconds at max 260°C or temperature of unit (during assembly) not over max. temperature rating above.		

**5.2. Electrical / Optical Characteristics at Ta=25°C**

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Test Condition
Average Luminous Intensity	IV	200	600		ucd	IF=1mA
Peak Emission Wavelength	$\lambda_p$		650		nm	IF=20mA
Spectral Line Half-Width	$\Delta\lambda$		20		nm	IF=20mA
Dominant Wavelength	$\lambda_d$		639		nm	IF=20mA
Forward Voltage Per Chip	VF		2.10	2.60	V	IF=20mA
Reverse Current Per Segment <sup>(2)</sup>	IR			100	$\mu$ A	VR=5V
Luminous Intensity Matching Ratio (Similar Light Area)	IV-m			2:1		IF=1mA

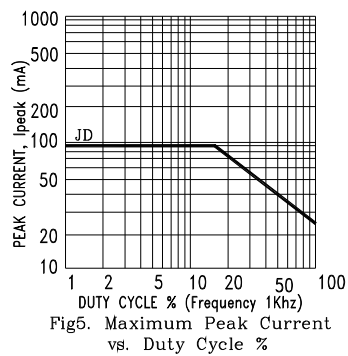
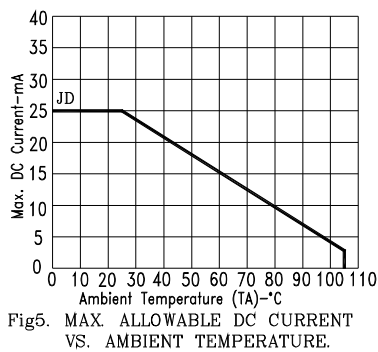
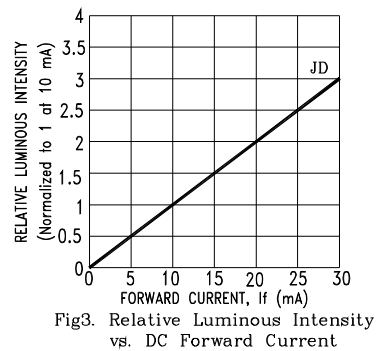
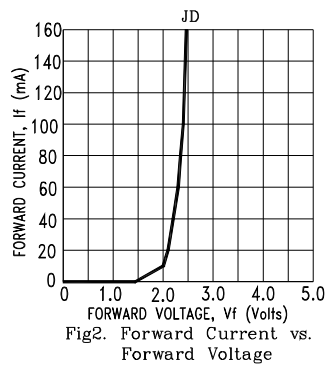
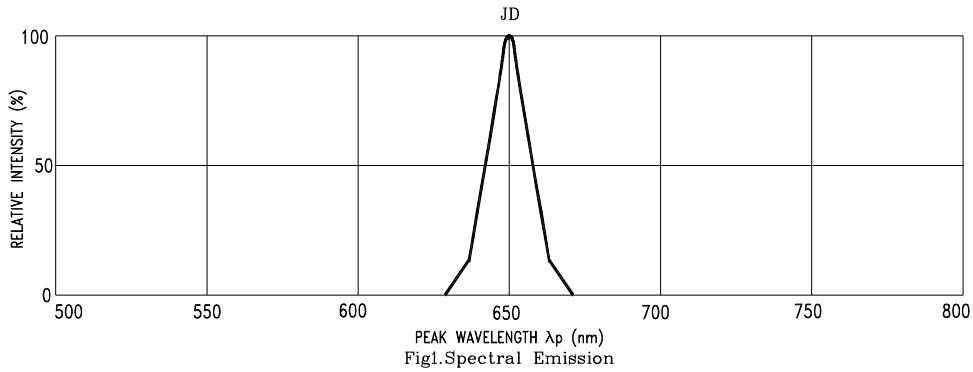
**Notes :**

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

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**6. Typical Electrical / Optical Characteristics Curves**

( 25°C Ambient Temperature Unless Otherwise Noted )



NOTE : JD=AlInGaP HYPER RED