



# LED Display

## Product Data Sheet

### LTS-3361JD

Spec No.: DS30-2001-436

Effective Date: 09/30/2003

Revision: A

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

## FEATURES

- \* 0.3 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

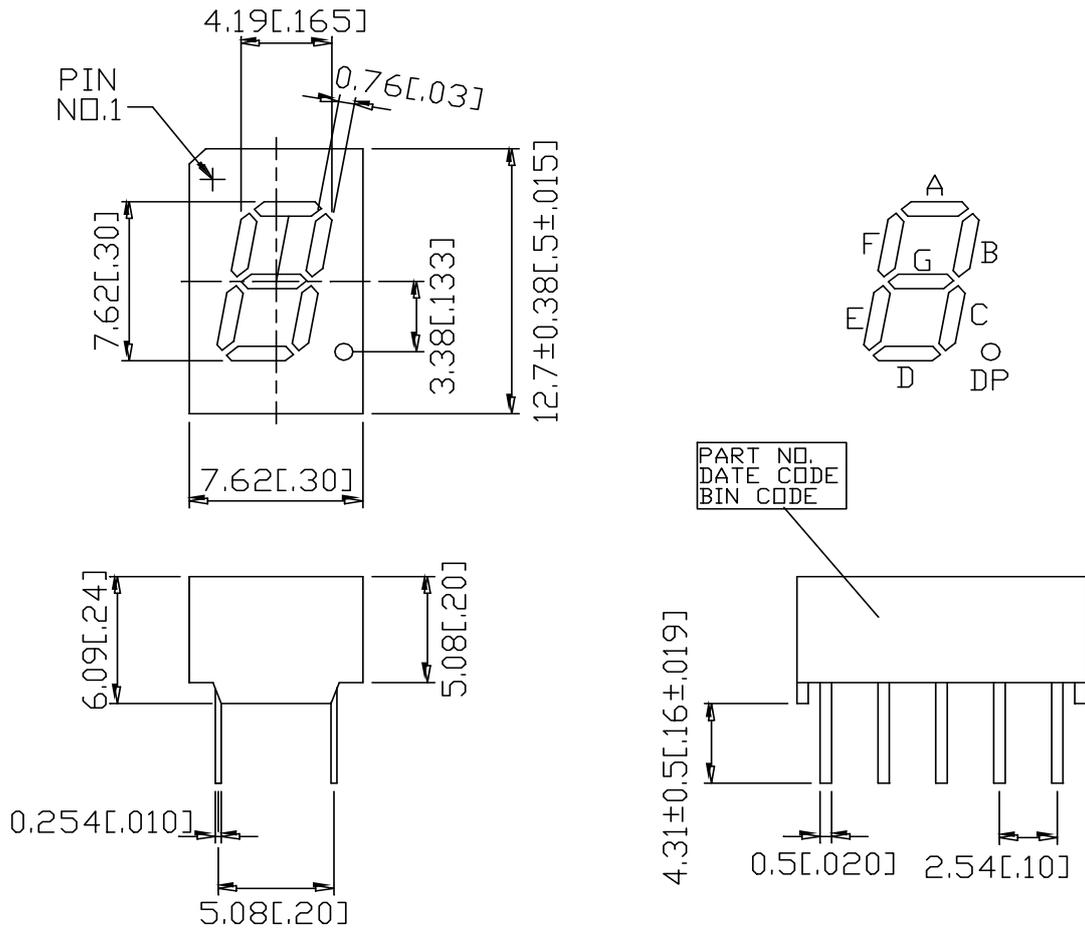
## DESCRIPTION

The LTS-3361JD is a 0.3 inch (7.62 mm) height digit display. The device uses AS-AllnGaP HYPER RED LED chips (AllnGaP epi on GaAs substrate). The display has light gray face and white segments.

## DEVICE

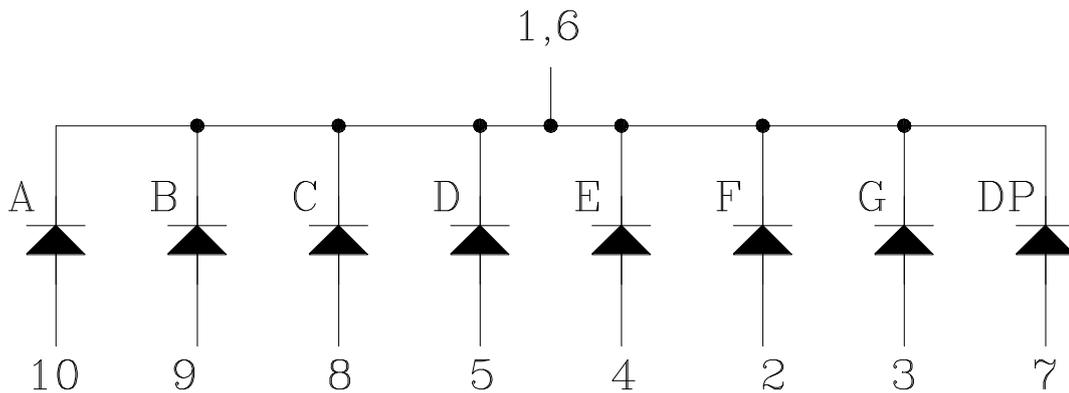
| PART NO.          | DESCRIPTION                         |
|-------------------|-------------------------------------|
| AllnGaP HYPER RED | Common Cathode<br>Rt. Hande Decimal |
| LTS-3361JD        |                                     |

**PACKAGE DIMENSIONS**



NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01“) unless otherwise noted.

**INTERNAL CIRCUIT DIAGRAM**



**PIN CONNECTION**

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

**ABSOLUTE MAXIMUM RATING**

| <b>PARAMETER</b>   | <b>MAXIMUM RATING</b>                    | <b>UNIT</b>        |
|--|--|--------------------|
| Power Dissipation Per Segment  | 70                                       | mW                 |
| Peak Forward Current Per Segment<br>( Frequency 1Khz, 18% duty cycle)                    | 90                                       | mA                 |
| Continuous Forward Current Per Segment   | 25                                       | mA                 |
| Forward Current Derating from 25 <sup>0</sup> C  | 0.33                                     | mA/ <sup>0</sup> C |
| Reverse Voltage Per Segment  | 5  | V                  |
| Operating Temperature Range  | -35 <sup>0</sup> C to +85 <sup>0</sup> C |                    |
| Storage Temperature Range  | -35 <sup>0</sup> C to +85 <sup>0</sup> C |                    |
| Soldering Conditions : 1/16 inch below seating plane for 3 seconds at 260 <sup>0</sup> C |  |                    |

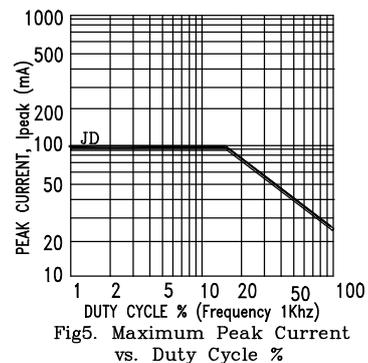
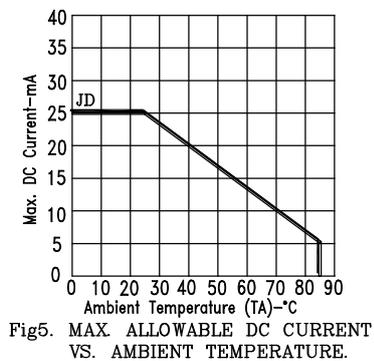
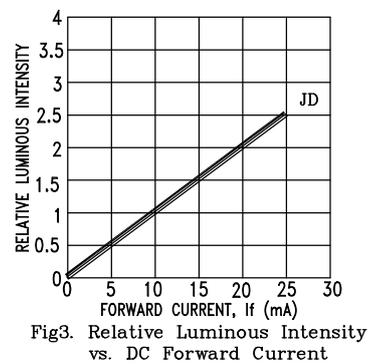
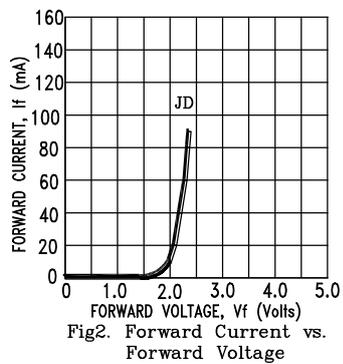
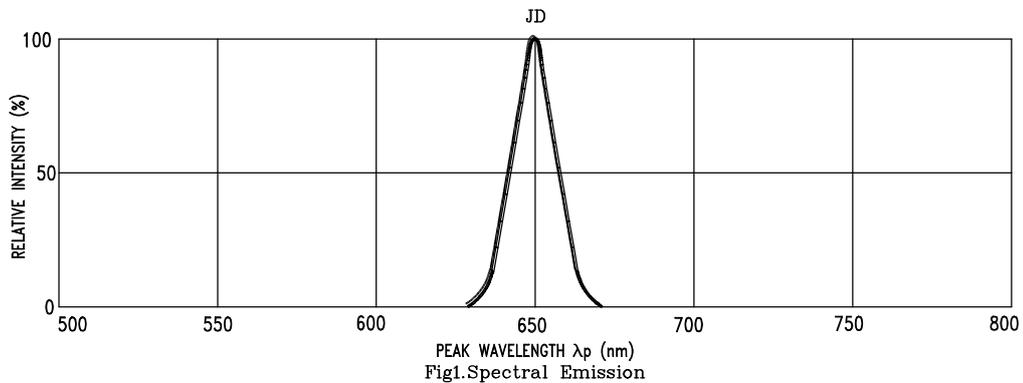
**ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25<sup>0</sup>C**

| <b>PARAMETER</b>                       | <b>SYMBOL</b>     | <b>MIN.</b> | <b>TYP.</b> | <b>MAX.</b> | <b>UNIT</b> | <b>TEST CONDITION</b> |
|--|-------------------|-------------|-------------|-------------|-------------|-----------------------|
| Average Luminous Intensity Per Segment | I <sub>v</sub>    | 200         | 600         |             | μcd         | I <sub>F</sub> =1mA   |
| Peak Emission Wavelength               | λ <sub>p</sub>    |             | 650         |             | nm          | I <sub>F</sub> =20mA  |
| Spectral Line Half-Width               | Δλ                |             | 20          |             | nm          | I <sub>F</sub> =20mA  |
| Dominant Wavelength                    | λ <sub>d</sub>    |             | 639         |             | nm          | I <sub>F</sub> =20mA  |
| Forward Voltage Per Segment            | V <sub>F</sub>    |             | 2.1         | 2.6         | V           | I <sub>F</sub> =20mA  |
| Reverse Current Per Segment            | I <sub>R</sub>    |             |             | 100         | μA          | V <sub>R</sub> =5V    |
| Luminous Intensity Matching Ratio      | I <sub>v</sub> -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.

# TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : JD=AlInGaP HYPER RED