



# **LED Display**

## **Product Data Sheet**

### **LTC-5623JG**

Spec No.: DS30-2007-0210

Effective Date: 01/24/2008

Revision: -

**LITE-ON DCC**

**RELEASE**

**BNS-OD-FC001/A4**

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**LED DISPLAY****LTC-5623JG**  
**DATASHEET**

| <u>Rev</u>                                     | <u>Description</u>                                  | <u>By</u>                             |
|------------------------------------------------|-----------------------------------------------------|---------------------------------------|
| 01                                             | ORIGINAL<br>(Refer to contour drawing Revision (-)) | <u>KITTISAK</u><br><u>Dec 18/2007</u> |
| (Above data for PD and Customer tracking only) |                                                     |                                       |
| -                                              | NPPR Received and Upload on OPNC                    | <u>KITTISAK</u><br><u>Dec 26/2007</u> |
|                                                |                                                     |                                       |
|                                                |                                                     |                                       |
|                                                |                                                     |                                       |
|                                                |                                                     |                                       |
|                                                |                                                     |                                       |

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## **FEATURES**

- \* 0.56 inch (14.2 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)**

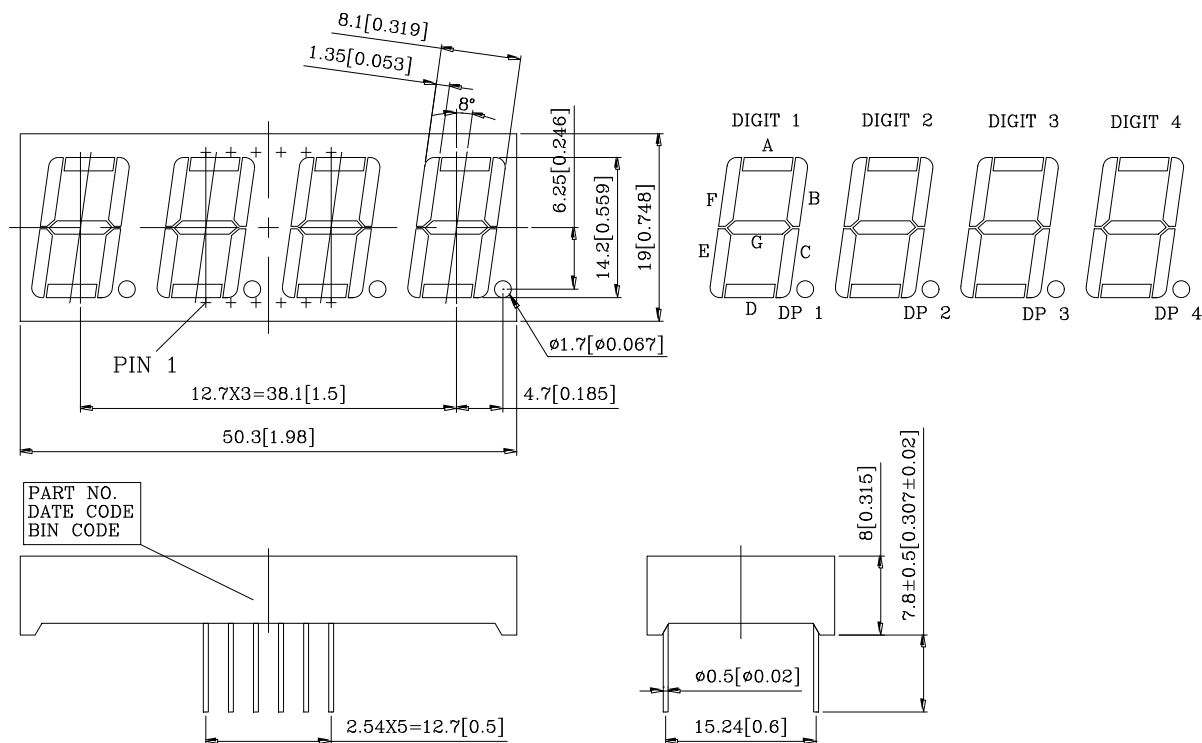
## **DESCRIPTION**

The LTC-5623JG is a 0.56 inch (14.2 mm) digit height quadruple digit seven-segment display. This device utilizes AlInGap green LED chips, which are made from AlInGap on a non-transparent GaP substrate, and has a black face and green segments.

## **DEVICE**

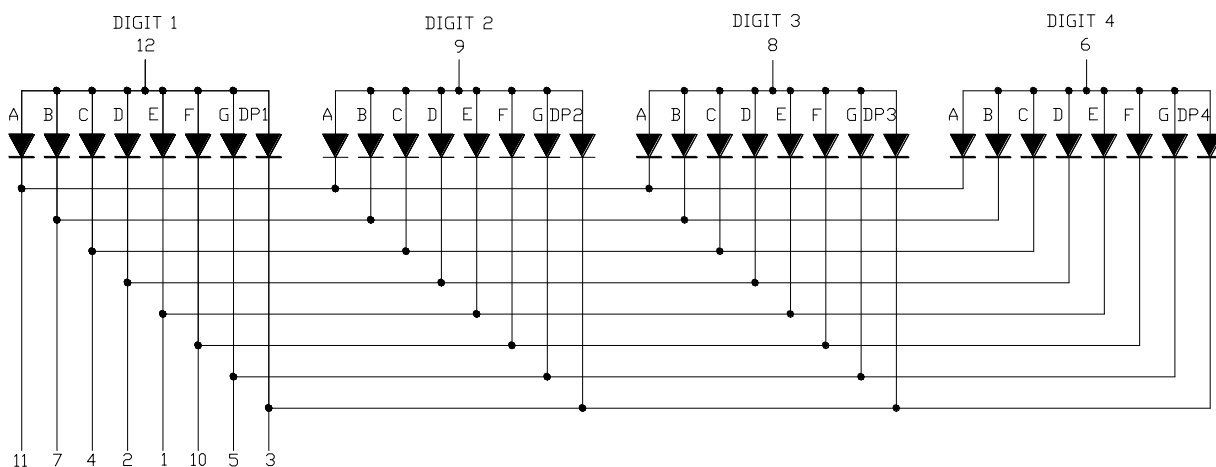
| <b>PART NO.</b> | <b>DESCRIPTION</b>                         |
|-----------------|--------------------------------------------|
| AlInGap Green   | Multiplex Common Anode<br>Rt. Hand Decimal |
| LTC-5623JG      |                                            |

## PACKAGE DIMENSIONS



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



**PIN CONNECTION**

| <b>NO.</b> | <b>CONNECTION</b>      |
|------------|------------------------|
| 1          | CATHODE E              |
| 2          | CATHODE D              |
| 3          | CATHODE D.P.           |
| 4          | CATHODE C              |
| 5          | CATHODE G              |
| 6          | COMMON ANODE (DIGIT 4) |
| 7          | CATHODE B              |
| 8          | COMMON ANODE (DIGIT 3) |
| 9          | COMMON ANODE (DIGIT 2) |
| 10         | CATHODE F              |
| 11         | CATHODE A              |
| 12         | COMMON ANODE (DIGIT 1) |

**ABSOLUTE MAXIMUM RATING AT Ta=25°C**

| PARAMETER                                                                                                                                                   | MAXIMUM RATING  | UNIT        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|
| Power Dissipation Per Segment                                                                                                                               | 70              | mW          |
| Peak Forward Current Per Segment<br>( 1/10 Duty Cycle, 0.1ms Pulse Width )                                                                                  | 60              | mA          |
| Continuous Forward Current Per Segment<br>Derating Linear From 25°C Per Segment                                                                             | 25              | mA<br>mA/°C |
| Reverse Voltage Per Segment                                                                                                                                 | 0.33            | V           |
| Operating Temperature Range                                                                                                                                 | -35°C to +105°C |             |
| Storage Temperature Range                                                                                                                                   | -35°C to +105°C |             |
| Solder Temperature: max 260°C for max 3sec at 1.6mm below seating plane.<br>or temperature of unit (during assembly) not over max. temperature rating above |                 |             |

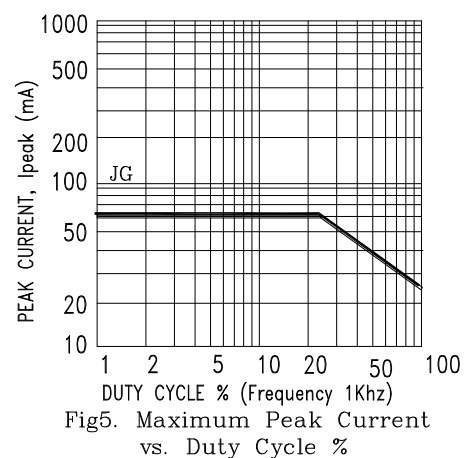
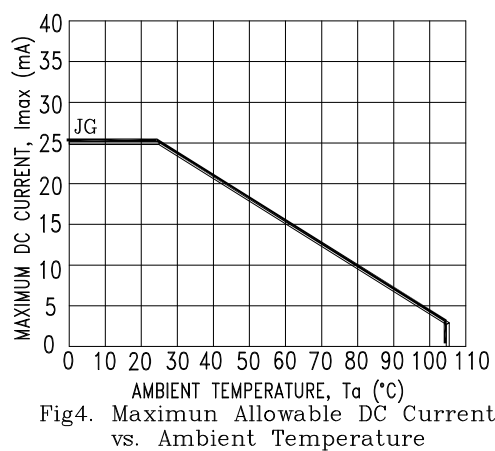
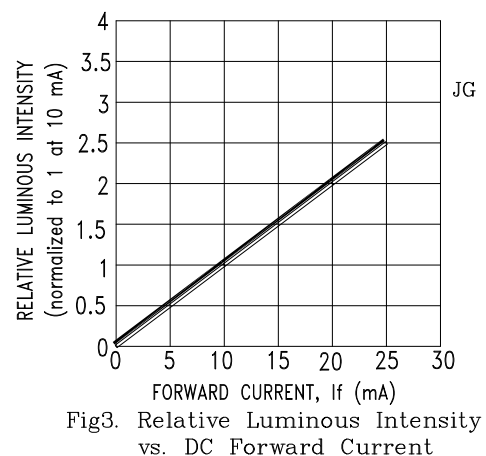
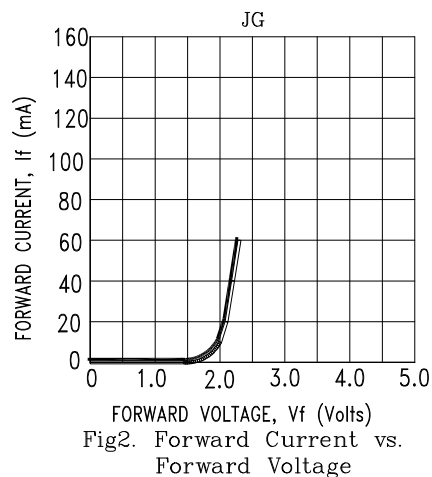
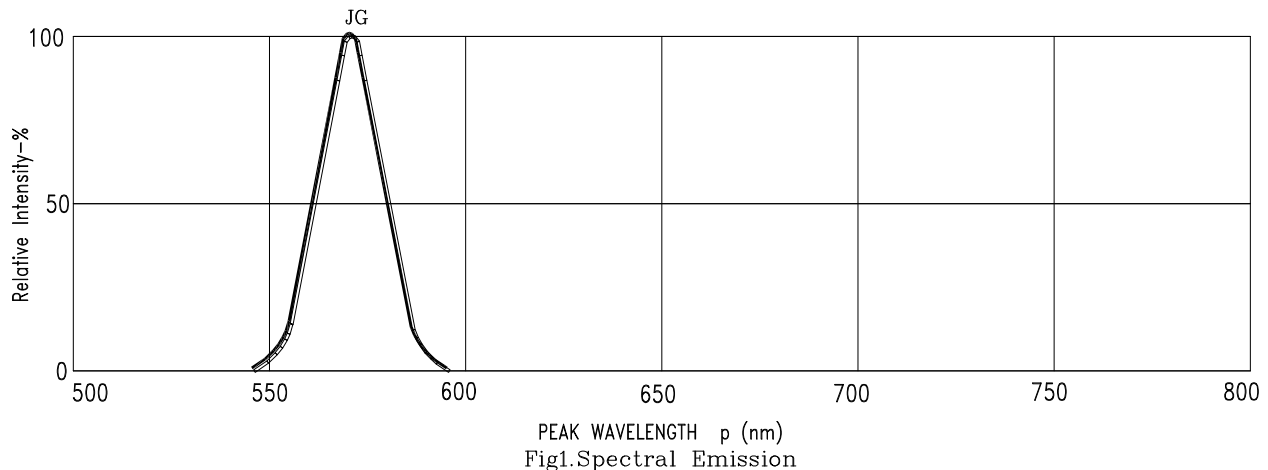
**ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C**

| PARAMETER                                                 | SYMBOL           | MIN. | TYP. | MAX. | UNIT | TEST CONDITION       |
|-----------------------------------------------------------|------------------|------|------|------|------|----------------------|
| Average Luminous Intensity                                | I <sub>v</sub>   | 320  | 700  |      | μcd  | I <sub>F</sub> =1mA  |
| Peak Emission Wavelength                                  | λ <sub>p</sub>   |      | 571  |      | nm   | I <sub>F</sub> =20mA |
| Spectral Line Half-Width                                  | Δλ               |      | 15   |      | nm   | I <sub>F</sub> =20mA |
| Dominant Wavelength                                       | λ <sub>d</sub>   |      | 572  |      | nm   | I <sub>F</sub> =20mA |
| Forward Voltage Per Segment                               | V <sub>F</sub>   |      | 2.05 | 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<br>(Similar Light Area) | I <sub>v-m</sub> |      |      | 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 : JG=AlInGaP Green