



# **LED Display**

## **Product Data Sheet**

### **LTC-5674JG**

Spec No.: DS30-2004-252

Effective Date: 10/29/2004

Revision: -

**LITE-ON DCC**

**RELEASE**

**BNS-OD-FC001/A4**

**FEATURES**

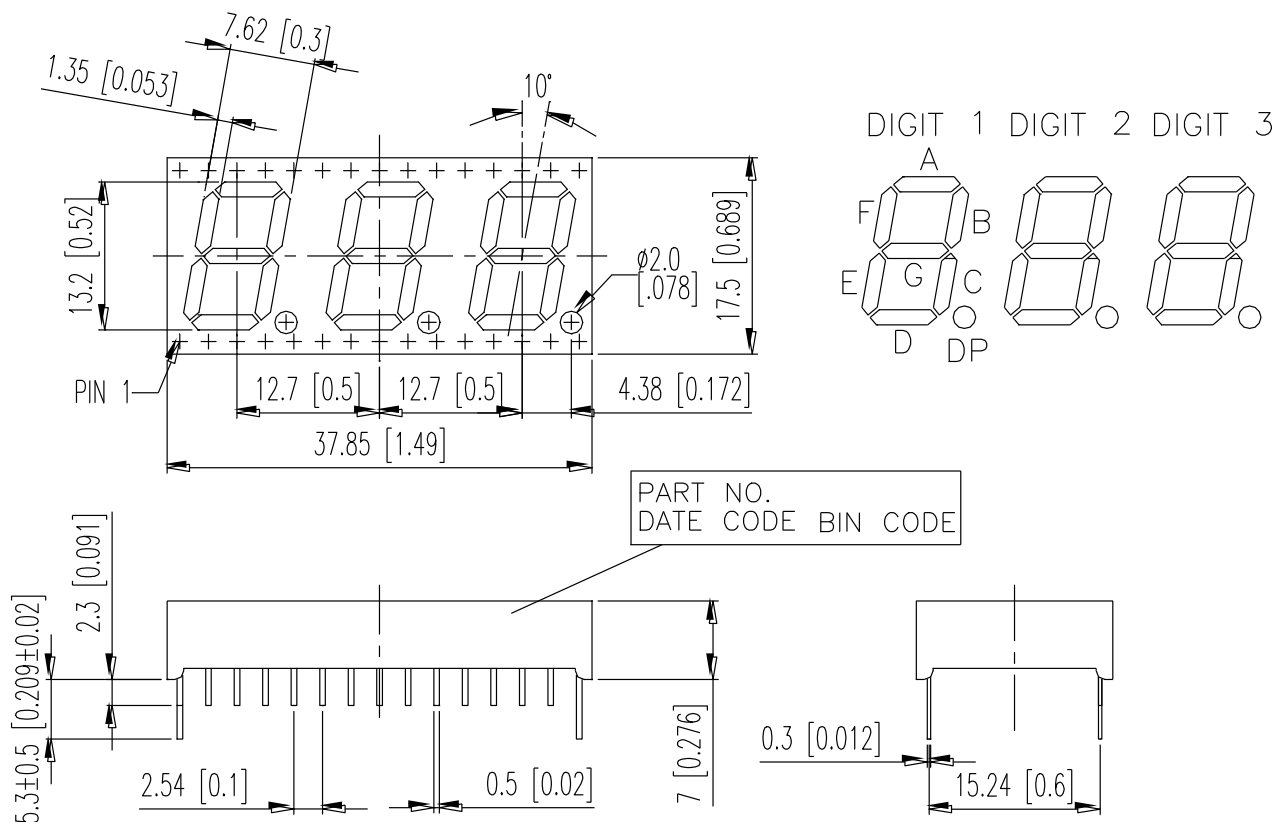
- \* 0.52 inch (13.2 mm) DIGIT HEIGHT
- \* CONTINUOUS UNIFORM SEGMENTS
- \* LOW POWER REQUIREMENT
- \* EXCELLENT CHARACTERS APPEARANCE
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* WIDE VIEWING ANGLE
- \* SOLID STATE RELIABILITY
- \* CATEGORIZED FOR LUMINOUS INTENSITY
- \* **LEAD-FREE PACKAGE**

**DESCRIPTION**

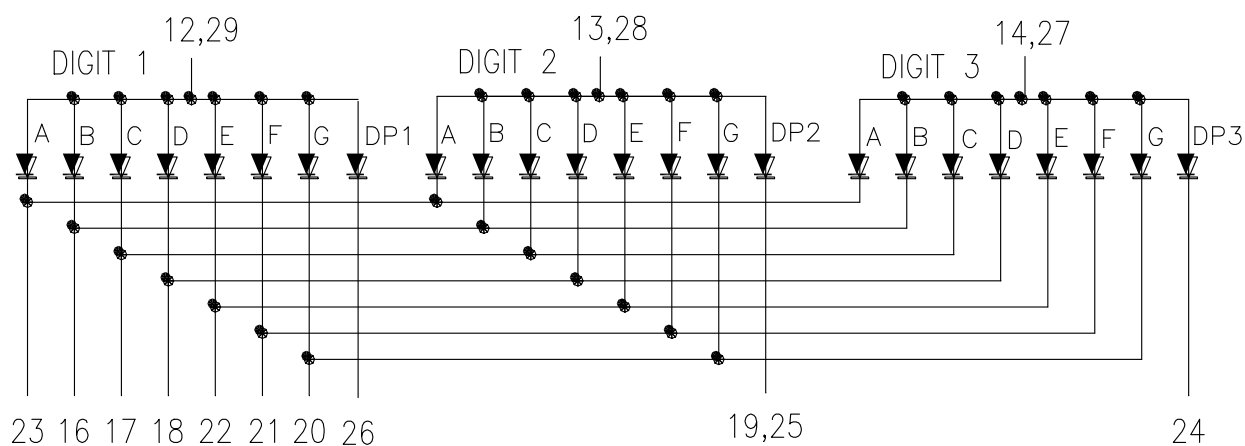
The LTC-5674JG is a 0.52 inch ( 13.2 mm) digit height triple LED display. This device uses AS-AlInGaP GREEN LED chips( AlInGaP on a non-transparent GaAs substrate).The display has gray face and white segments.

**DEVICE**

| PART NO.      | DESCRIPTION                      |
|---------------|----------------------------------|
| AlInGaP GREEN | Common Anode<br>Rt. Hand Decimal |
| LTC-5674JG    |                                  |

**PACKAGE DIMENSIONS**


NOTES: All dimensions are in millimeters. Tolerances are  $\pm 0.25$  mm (0.01") unless otherwise noted.

**INTERNAL CIRCUIT DIAGRAM**


**PIN CONNECTION**

| NO. | CONNECTION           | NO. | CONNECTION           |
|-----|----------------------|-----|----------------------|
| 1   | NO CONNECTION        | 16  | CATHODE B            |
| 2   | NO CONNECTION        | 17  | CATHODE C            |
| 3   | NO CONNECTION        | 18  | CATHODE D            |
| 4   | NO CONNECTION        | 19  | CATHODE DP (DIGIT 2) |
| 5   | NO CONNECTION        | 20  | CATHODE G            |
| 6   | NO CONNECTION        | 21  | CATHODE F            |
| 7   | NO CONNECTION        | 22  | CATHODE E            |
| 8   | NO CONNECTION        | 23  | CATHODE A            |
| 9   | NO CONNECTION        | 24  | CATHODE DP (DIGIT 3) |
| 10  | NO CONNECTION        | 25  | CATHODE DP (DIGIT 2) |
| 11  | NO CONNECTION        | 26  | CATHODE DP (DIGIT 1) |
| 12  | COMMON ANODE DIGIT 1 | 27  | COMMON ANODE DIGIT 3 |
| 13  | COMMON ANODE DIGIT 2 | 28  | COMMON ANODE DIGIT 2 |
| 14  | COMMON ANODE DIGIT 3 | 29  | COMMON ANODE DIGIT 1 |
| 15  | NO CONNECTION        | 30  | NO CONNECTION        |

**ABSOLUTE MAXIMUM RATING**

| PARAMETER                                                                                | MAXIMUM RATING | UNIT  |
|------------------------------------------------------------------------------------------|----------------|-------|
| Power Dissipation Per Segment                                                            | 70             | mW    |
| Peak Forward Current Per Segment<br>( Frequency 1Khz, 10% duty cycle)                    | 60             | mA    |
| Continuous Forward Current Per Segment                                                   | 25             | mA    |
| Forward Current Derating from 25 <sup>0</sup> C                                          | 0.33           | mA/°C |
| Reverse Voltage Per Segment                                                              | 5              | V     |
| Operating Temperature Range                                                              | -35°C to +85°C |       |
| Storage Temperature Range                                                                | -35°C to +85°C |       |
| Soldering Conditions : 1/16 inch below seating plane for 3 seconds at 260 <sup>0</sup> C |                |       |

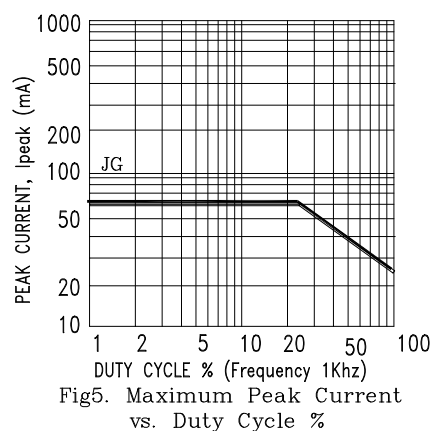
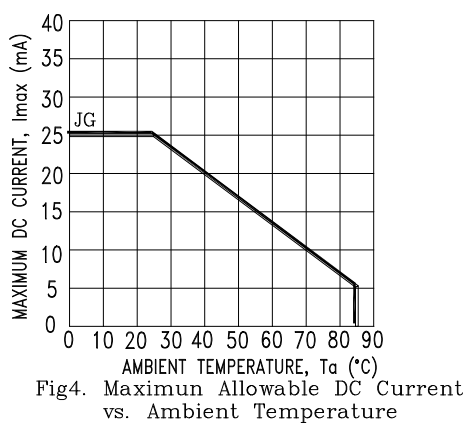
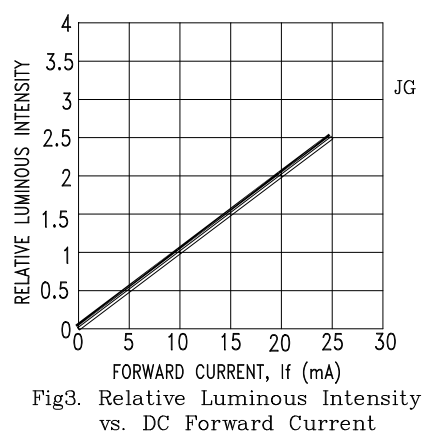
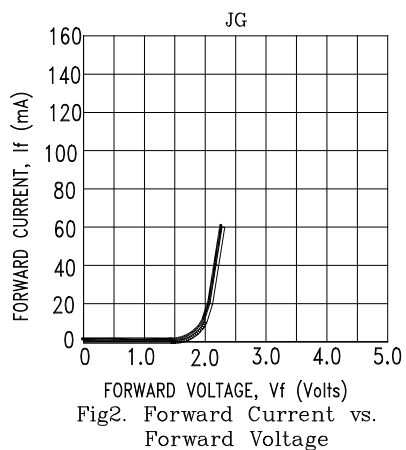
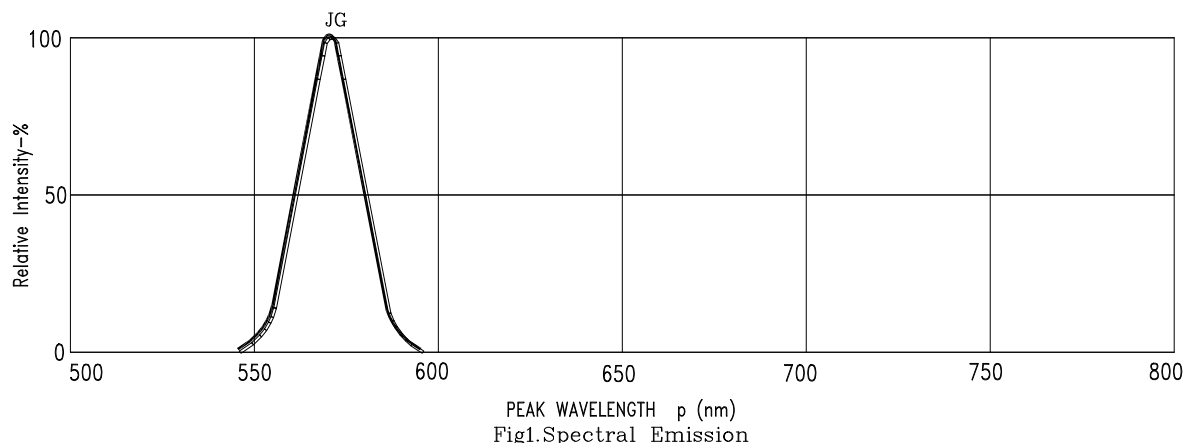
**ELECTRICAL / OPTICAL CHARACTERISTICS**

| PARAMETER                              | SYMBOL            | MIN. | TYP. | MAX. | UNIT | TEST CONDITION       |
|----------------------------------------|-------------------|------|------|------|------|----------------------|
| Average Luminous Intensity Per Segment | I <sub>v</sub>    | 200  | 577  |      | μcd  | I <sub>F</sub> =1mA  |
|                                        |                   |      | 6346 |      | μcd  | I <sub>F</sub> =10mA |
| 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>    |      | 2.1  | 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 : JG=AlInGaP Green