



# **LED Display**

## **Product Data Sheet**

### **LTD-5260G**

Spec No.: DS-30-97-020

Effective Date: 12/08/2010

Revision: B

**LITE-ON DCC**

**RELEASE**

**BNS-OD-FC001/A4**

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**FEATURES**

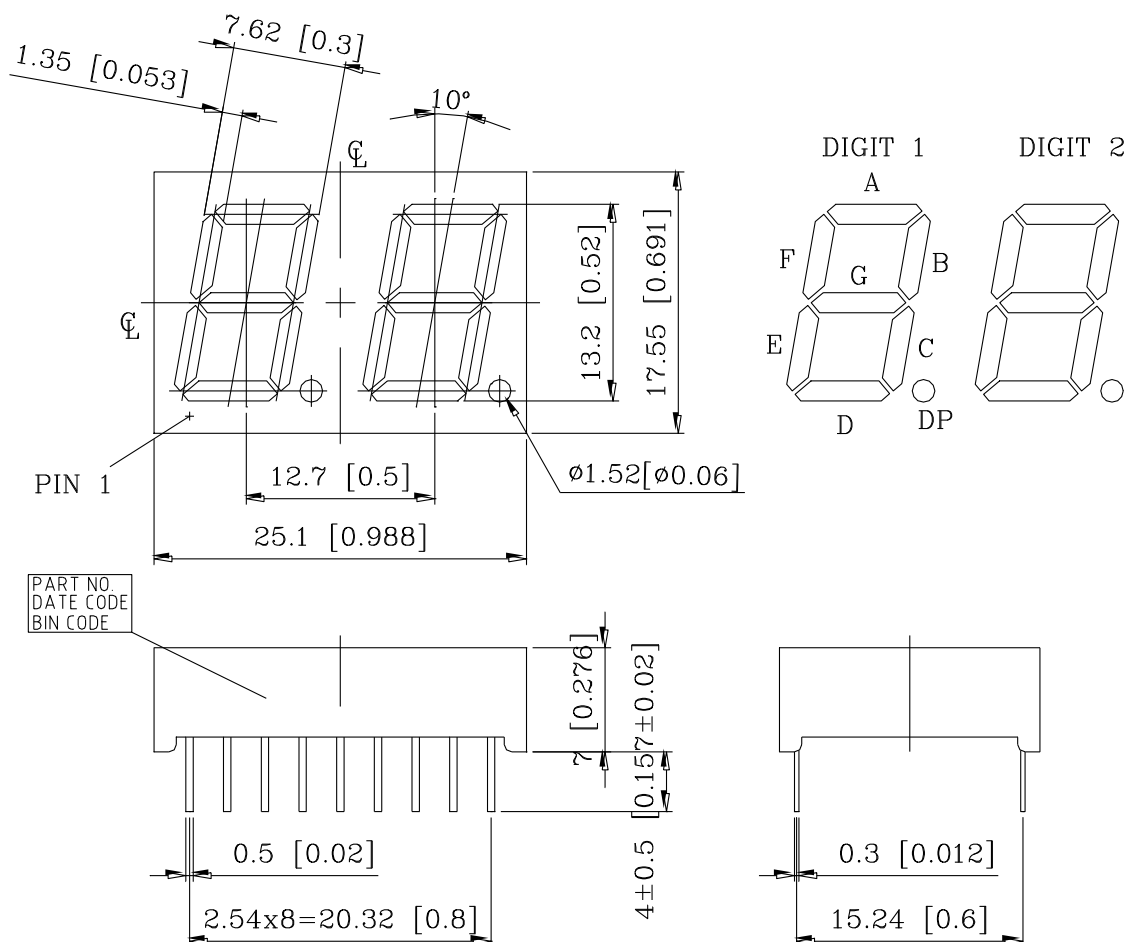
- \* 0.52 inch (13.2mm) DIGIT HEIGHT
- \* CONTINUOUS UNIFORM SEGMENTS
- \* LOW POWER REQUIREMENT
- \* EXCELLENT CHARACTERS APPEARANCE
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* WIDE VIEWING ANGLE
- \* SOLID STATE RELIABILITY
- \* CATEGORIZED FOR LUMINOUS INTENSITY
- \* **LEAD-FREE PACKAGE**

**DESCRIPTION**

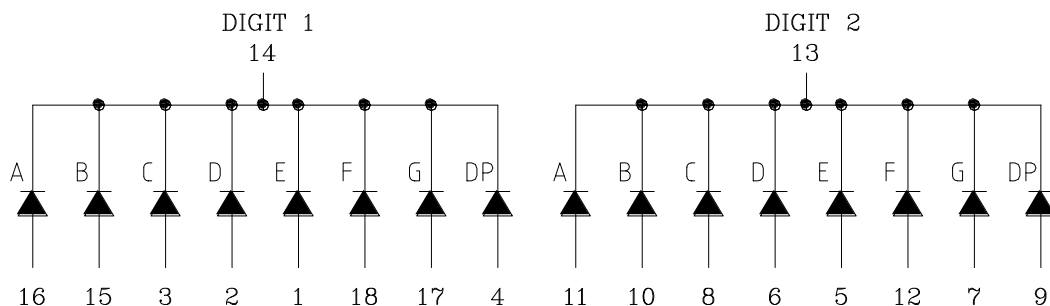
The LTD-5260G is a 0.52inch (13.2mm) digit height dual digit seven-segment display. The device utilizes Green LED chips, which are made from GaP on a transparent GaP substrate, and has a black face and green segments.

**DEVICE**

| PART NO.  | DESCRIPTION                        |
|-----------|------------------------------------|
| GREEN     | COMMON CATHODE<br>RT. HAND DECIMAL |
| LTD-5260G |                                    |

**PACKAGE DIMENSIONS**


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

**INTERNAL CIRCUIT DIAGRAM**


**PIN CONNECTION**

| No. | CONNECTION               |
|-----|--------------------------|
| 1   | ANODE E (DIGIT 1)        |
| 2   | ANODE D (DIGIT 1)        |
| 3   | ANODE C (DIGIT 1)        |
| 4   | ANODE DP (DIGIT 1)       |
| 5   | ANODE E (DIGIT 2)        |
| 6   | ANODE D (DIGIT 2)        |
| 7   | ANODE G (DIGIT 2)        |
| 8   | ANODE C (DIGIT 2)        |
| 9   | ANODE DP (DIGIT 2)       |
| 10  | ANODE B (DIGIT 2)        |
| 11  | ANODE A (DIGIT 2)        |
| 12  | ANODE F (DIGIT 2)        |
| 13  | COMMON CATHODE (DIGIT 2) |
| 14  | COMMON CATHODE (DIGIT 1) |
| 15  | ANODE B (DIGIT 1)        |
| 16  | ANODE A (DIGIT 1)        |
| 17  | ANODE G (DIGIT 1)        |
| 18  | ANODE F (DIGIT 1)        |

**ABSOLUTE MAXIMUM RATING**

| PARAMETER   | MAXIMUM RATING | UNIT  |
|---|----------------|-------|
| Power Dissipation Per Chip  | 75             | mW    |
| Peak Forward Current Per Chip<br>( 1/10 Duty Cycle, 0.1ms Pulse Width ) | 100            | mA    |
| Continuous Forward Current Per Chip                                     | 25             | mA    |
| Derating Linear From 25°C Per Chip                                      | 0.33           | mA/°C |
| Reverse Voltage Per Chip  | 5              | V     |
| Operating Temperature Range   | -35°C to +85°C |       |
| Storage Temperature Range   | -35°C to +85°C |       |
| Solder Temperature: max 260°C for max 3sec at 1.6mm below seating plane |                |       |

**TRICAL / OPTICAL CHARACTERISTICS AT T<sub>A</sub>=25°C**

| PARAMETER                         | SYMBOL            | MIN. | TYP. | MAX. | UNIT | TEST CONDITION       |
|-----------------------------------|-------------------|------|------|------|------|----------------------|
| Average Luminous Intensity        | I <sub>v</sub>    | 800  | 2200 |      | μcd  | I <sub>F</sub> =10mA |
| Peak Emission Wavelength          | λ <sub>p</sub>    |      | 565  |      | nm   | I <sub>F</sub> =20mA |
| Spectral Line Half-Width          | Δλ                |      | 30   |      | nm   | I <sub>F</sub> =20mA |
| Dominant Wavelength               | λ <sub>d</sub>    |      | 569  |      | nm   | I <sub>F</sub> =20mA |
| Forward Voltage Per Chip          | V <sub>F</sub>    |      | 2.1  | 2.6  | V    | I <sub>F</sub> =20mA |
| Reverse Current Per Chip          | 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> =10mA |

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)

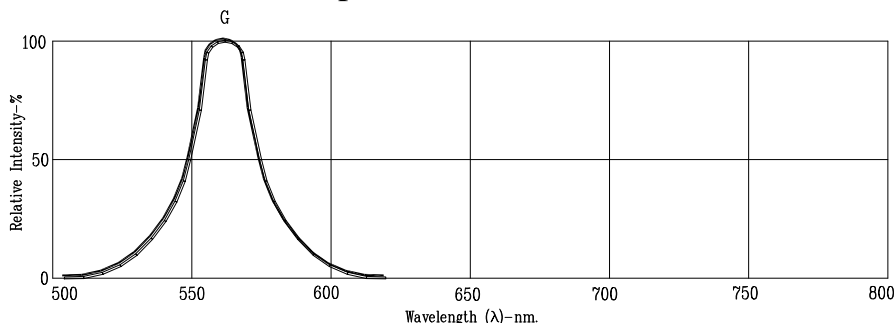


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

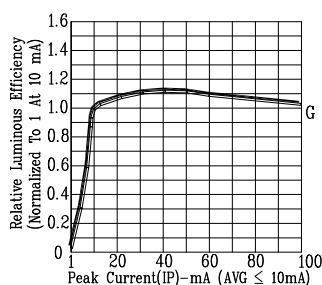


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

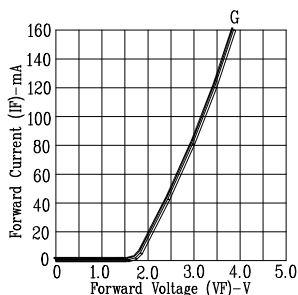


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

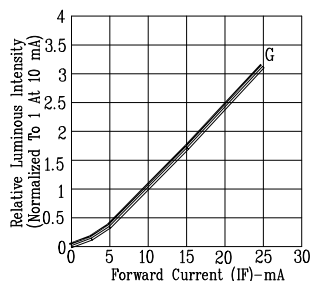


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

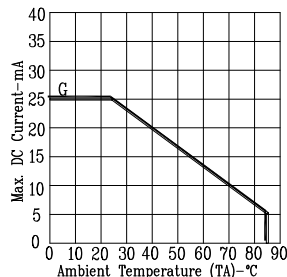


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

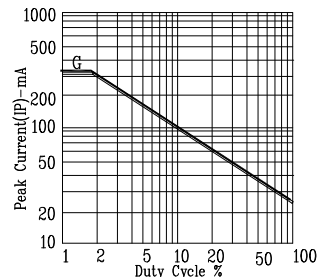


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN