# Property of Lite-On Only

#### **FEATURES**

- \*0.56 inch (14.22 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 LTD-6710P is a 0.56 inch (14.22 mm) digit height dual digit seven-segment display. This device utilizes bright red LED chips, which are made from GaP on a transparent GaP substrate, and has a black face and red segments.

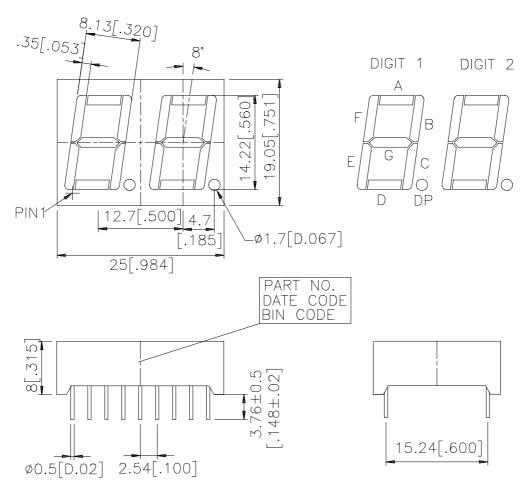
### **DEVICE**

| PART NO.   | DESCRIPTION      |  |  |  |
|------------|------------------|--|--|--|
| Bright Red | Common Anode     |  |  |  |
| LTD-6710P  | Rt. Hand Decimal |  |  |  |

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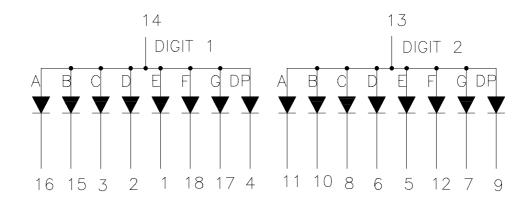
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### **PACKAGE DIMENSIONS**



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

### INTERNAL CIRCUIT DIAGRAM



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## **PIN CONNECTION**

| NO. | CONNECTION             |
|-----|------------------------|
| 1   | Cathode E (Digit 1)    |
| 2   | Cathode D (Digit 1)    |
| 3   | Cathode C (Digit1)     |
| 4   | Cathode D.P. (Digit 1) |
| 5   | Cathode E (Digit 2)    |
| 6   | Cathode D (Digit 2)    |
| 7   | Cathode G (Digit 2)    |
| 8   | Cathode C (Digit 2)    |
| 9   | Cathode D.P. (Digit 2) |
| 10  | Cathode B (Digit 2)    |
| 11  | Cathode A (Digit 2)    |
| 12  | Cathode F (Digit2)     |
| 13  | Common Anode (Digit 2) |
| 14  | Common Anode (Digit 1) |
| 15  | Cathode B (Digit 1)    |
| 16  | Cathode A (Digit1)     |
| 17  | Cathode G (Digit 1)    |
| 18  | Cathode F (Digit 1)    |

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

| PARAMETER  | MAXIMUM RATING | UNIT  |  |  |  |
|--|----------------|-------|--|--|--|
| Power Dissipation Per Segment  | 40             | mW    |  |  |  |
| Peak Forward Current Per Segment ( 1/10 Duty Cycle, 0.1ms Pulse Width )  | 60             | mA    |  |  |  |
| Continuous Forward Current Per Segment                                   | 15             | mA    |  |  |  |
| Derating Linear From 25°C Per Segment                                    | 0.2            | mA/°C |  |  |  |
| Reverse Voltage Per Segment  | 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. |                |       |  |  |  |

# ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

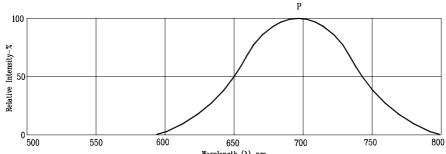
| PARAMETER                         | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION       |
|-----------------------------------|--------|------|------|------|------|----------------------|
| Average Luminous Intensity        | Iv     | 340  | 950  |      | μcd  | I <sub>F</sub> =10mA |
| Peak Emission Wavelength          | λр     |      | 697  |      | nm   | I <sub>F</sub> =20mA |
| Spectral Line Half-Width          | Δλ     |      | 90   |      | nm   | I <sub>F</sub> =20mA |
| Dominant Wavelength               | λd     |      | 657  |      | nm   | I <sub>F</sub> =20mA |
| Forward Voltage Per Segment       | VF     |      | 2.1  | 2.6  | V    | I <sub>F</sub> =20mA |
| Reverse Current Per Segment       | Ir     |      |      | 100  | μA   | V <sub>R</sub> =5V   |
| Luminous Intensity Matching Ratio | Iv-m   |      |      | 2:1  |      | I <sub>F</sub> =10mA |

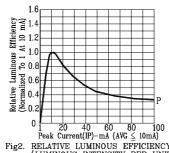
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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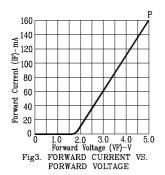
### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

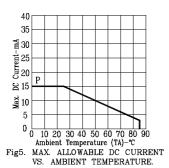
(25°C Ambient Temperature Unless Otherwise Noted)

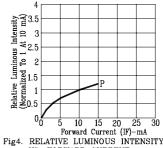




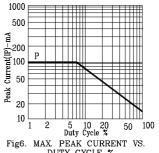
0 20 40 60 80 100 Peak Current(IP)-mA (AVG ≤ 10mA) RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHZ)







VS. FORWARD CURRENT



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

NOTE: P=BRIGHT RED

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