

LITEON LITE-ON TECHNOLOGY CORPORATION

Property of Lite-On Only

FEATURES

- *0.4 inch (10 mm) DIGIT HEIGHT
- *CONTINUOUS UNIFORM SEGMENTS
- ***LOW POWER REQUIREMENT**
- *EXCELLENT CHARACTERS APPEARANCE
- *HIGH BRIGHTNESS & HIGH CONTRAST
- *WIDE VIEWING ANGLE
- *** SOLID STATE RELIABILITY**
- *LEAD-FREE PACKAGE (ACCORDING TO ROHS)

DESCRIPTION

The LTC-4627P-15 is a 0.4 inch (10 mm) digit height quadruple digit seven-segment display. This device uses BRIGHT RED LED chips (GaP epi on GaP substrate). The display has gray face and white segments.

DEVICE

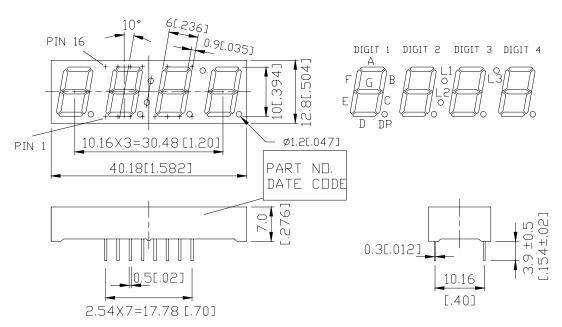
| PART NO. | DESCRIPTION | | | |
|--------------|------------------------|--|--|--|
| BRIGHT RED | Multiplex Common Anode | | | |
| LTC-4627P-15 | Rt. Hand Decimal | | | |

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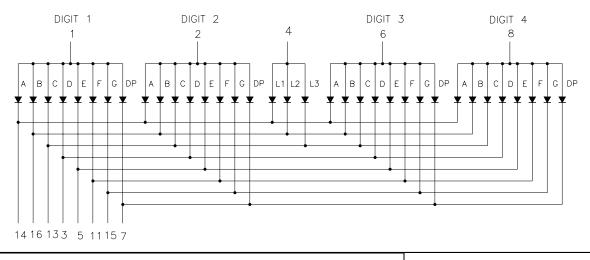
PACKAGE DIMENSIONS



- Add protective film in display.
- Protective film specification
 - 1. Dimensions: 13x 40.18mm
 - 2. Material: PE
 - 3. Temp. Range: -5~50 degree C.

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

INTERNAL CIRCUIT DIAGRAM



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PIN CONNECTION

| NO | CONNECTION | | | |
|----|-------------------------|--|--|--|
| 1 | COMMON ANODE (DIGIT 1) | | | |
| 2 | COMMON ANODE (DIGIT 2) | | | |
| 3 | CATHODE D | | | |
| 4 | COMMON ANODE L1, L2, L3 | | | |
| 5 | CATHODE E | | | |
| 6 | COMMON ANODE (DIGIT 3) | | | |
| 7 | CATHODE DP | | | |
| 8 | COMMON ANODE (DIGIT 4) | | | |
| 9 | NO CONNECTION | | | |
| 10 | NO PIN | | | |
| 11 | CATHODE F | | | |
| 12 | NO PIN | | | |
| 13 | CATHODE C, L3 | | | |
| 14 | CATHODE A, L1 | | | |
| 15 | CATHODE G | | | |
| 16 | CATHODE B, L2 | | | |

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ABSOLUTE MAXIMUM RATING

| PARAMETER | MAXIMUM RATING | UNIT | | | | |
|---|---|-------|--|--|--|--|
| Power Dissipation Per Segment | 40 | mW | | | | |
| Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle) | 60* | mA | | | | |
| Continuous Forward Current Per Segment | 15 | mA | | | | |
| Forward Current Derating from 25 ^o C | 0.2 | mA/°C | | | | |
| Reverse Voltage Per Segment | 5 | V | | | | |
| Operating Temperature Range | perating 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°C. | | | | | | |

^{*} see figure 5 to establish pulsed condition

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|--|---------------------------|------|------|------|------|----------------------|
| Average Luminous Intensity Per Segment | Iv | 320 | 800 | | μcd | I _F =10mA |
| Peak Emission Wavelength | λр | | 697 | | nm | I _F =20mA |
| Spectral Line Half-Width | Δλ | | 90 | | nm | I _F =20mA |
| Dominant Wavelength | λd | | 657 | | nm | I _F =20mA |
| Forward Voltage Per Segment | \mathbf{V}_{F} | | 2.1 | 2.6 | V | I _F =20mA |
| Reverse Current Per Segment | Ir | | | 100 | μΑ | $V_R=5V$ |
| Luminous Intensity Matching Ratio (Similar Light Area) | Iv-m | | | 2:1 | | I _F =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.

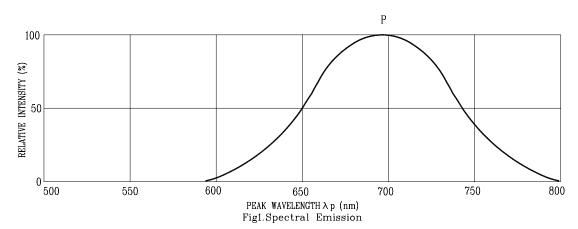
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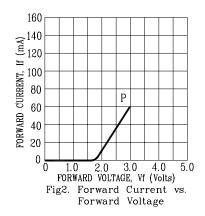
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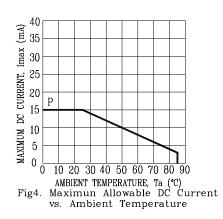
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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)







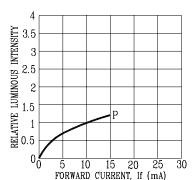
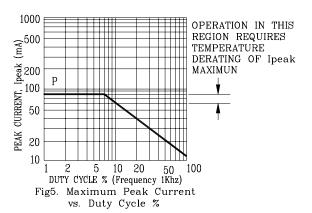


Fig3. Relative Luminous Intensity vs. DC Forward Current



NOTE: P=BRIGHT RED

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