



Spec No.: DS-30-94-042 Effective Date: 05/04/2000

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITEON

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FEATURES

- *0.4 inch (10.0 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 LTS-4301WC is a 0.4-inch (1.0-mm) digit height single digit low current seven-segment display. This device utilizes AlGaAs red LED chips, which are made from AlGaAs on a non-transparent GaAs substrate, and has a gray face and white segments.

This low current seven-segment display is designed to perform under low power consumption. It is tested and selected for it's excellent low current characteristics. It can be driven in low current condition and the segments are matched. This driving current as low as 1mA per segment is applicable.

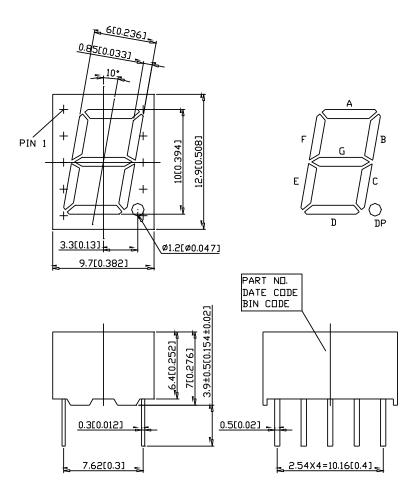
DEVICE

| PART NO. | DESCRIPTION | | |
|------------|------------------|--|--|
| AlGaAs RED | Common Cathode | | |
| LTS-4301WC | Rt. Hand Decimal | | |

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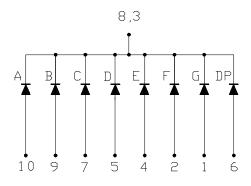
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PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



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PIN CONNECTION

| No. | CONNECTION |
|-----|------------------|
| 1 | ANODE G |
| 2 | ANODE F |
| 3 | COMMON CATHODE*1 |
| 4 | ANODE E |
| 5 | ANODE D |
| 6 | ANODE D.P. |
| 7 | ANODE C |
| 8 | COMMON CATHODE*1 |
| 9 | ANODE B |
| 10 | ANODE A |

NOTE:1.PIN 3 & 8 ARE INTERNALLY CONNECTED.

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ABSOLUTE MAXIMUM RATING AT Ta=25°C

| PARAMETER | MAXIMUM RATING | UNIT | |
|--|--|-------|--|
| Power Dissipation Per Segment | 75 | mW | |
| Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width) | 125 | mA | |
| Continuous Forward Current Per Segment | 30 | mA | |
| Derating Linear From 25°C Per Segment | 0.4 | mA/°C | |
| Reverse Voltage Per Segment | 5 | V | |
| Operating Temperature Range | -35°C to $+85^{\circ}\text{C}$ | | |
| Storage Temperature Range | -35°C to +85°C | | |
| Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane. | | | |

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|-----------------------------------|--------|------|------|------|------|----------------------|
| Average Luminous Intensity | Iv | 200 | 650 | | μcd | I _F =1mA |
| | | | 3400 | | μcd | I _F =5mA |
| Peak Emission Wavelength | λр | | 660 | | nm | I _F =20mA |
| Spectral Line Half-Width | Δλ | | 35 | | nm | I _F =20mA |
| Dominant Wavelength | λd | | 638 | | nm | I _F =20mA |
| | VF | | 1.6 | | | I _F =1mA |
| Forward Voltage Per Segment | | | 1.7 | 2.4 | V | I _F =5mA |
| | | | 1.8 | | | I _F =20mA |
| Reverse Current Per Segment | IR | | | 100 | μΑ | V _R =5V |
| Luminous Intensity Matching Ratio | Iv-m | | | 2:1 | | I _F =10mA |

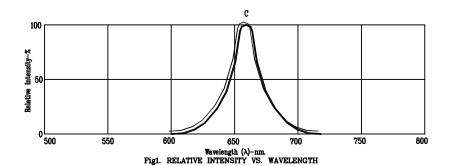
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

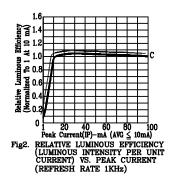
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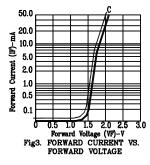
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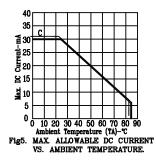
TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

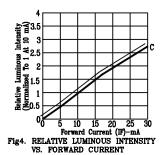
(25°C Ambient Temperature Unless Otherwise Noted)

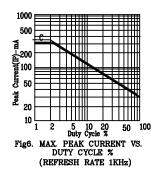












NOTE: C=AlGaAs RED

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