Property of Lite-On Only

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-4301JS is a 0.4 inch (10.0 mm) digit height single digit seven-segment display. This device utilizes AlInGaP Yellow LED chips, which are made from AlInGaP on a transparent GaAs substrate, and has a gray face and white segments.

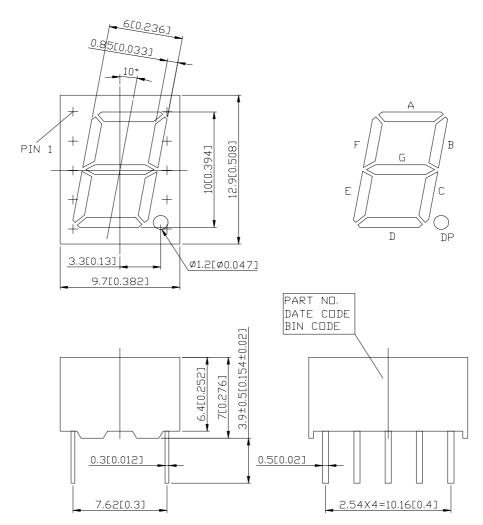
DEVICE

| PART NO. | DESCRIPTION | | |
|----------------|------------------|--|--|
| AlInGaP Yellow | Common Cathode | | |
| LTS-4301JS | Rt. Hand Decimal | | |

PART NO.:LTS-4301JS PAGE: 1 of 5

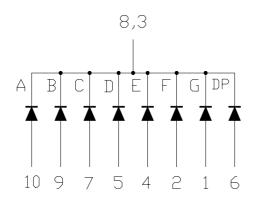
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PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PART NO.:LTS-4301JS PAGE: 2 of 5



Property of Lite-On Only

PIN CONNECTION

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

3 of 5 PAGE: PART NO.:LTS-4301JS



Property of Lite-On Only

ABSOLUTE MAXIMUM RATING AT Ta=25°C

| PARAMETER | MAXIMUM RATING | UNIT | | |
|--|----------------|-------|--|--|
| Power Dissipation Per Segment | 70 | mW | | |
| Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width) | 60 | mA | | |
| Continuous Forward Current Per Segment | 25 | mA | | |
| Derating Linear From 25°C Per Segment | 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 | | | |
| Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane. | | | | |

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

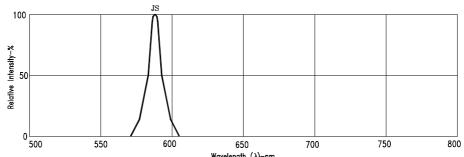
| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|-----------------------------------|--------|------|------|------|------|----------------------|
| Average Luminous Intensity | Iv | 200 | 650 | | μcd | I _F =1mA |
| Peak Emission Wavelength | λр | | 588 | | nm | I _F =20mA |
| Spectral Line Half-Width | Δλ | | 15 | | nm | I _F =20mA |
| Dominant Wavelength | λd | | 587 | | nm | I _F =20mA |
| Forward Voltage Per Segment | VF | | 2.05 | 2.6 | V | I _F =20mA |
| Reverse Current Per Segment | Ir | | | 100 | μΑ | V _R =5V |
| Luminous Intensity Matching Ratio | Iv-m | | | 2:1 | | I _F =1mA |

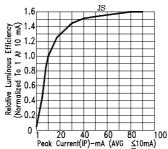
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

PAGE: PART NO.:LTS-4301JS 4 of 5

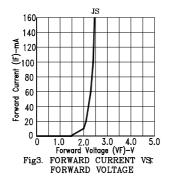
TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)





0 1 20 40 60 80 100
Peak Current(IP)-mA (AVG ≤10mA)
Fig2. RELATIVE LUMINOUS EFFICIENCY
(LUMINOUS INTENSITY PER UNIT
CURRENT) VS. PEAK CURRENT



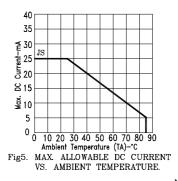


Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

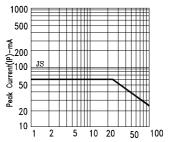


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

NOTE : JS=AlInGaP YELLOW

PART NO.:LTS-4301JS PAGE: 5 of 5