



**Spec No.: DS30-2001-367**Effective Date: 11/01/2001

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

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

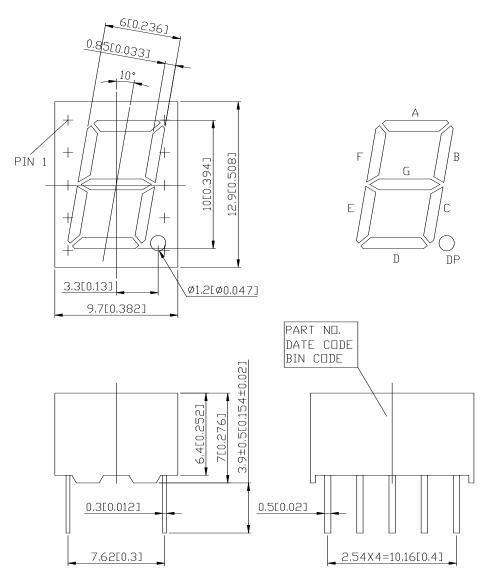
### **DEVICE**

PART NO.	DESCRIPTION		
AlInGaP Green	Common Cathode		
LTS-4301JG	Rt. Hand Decimal		

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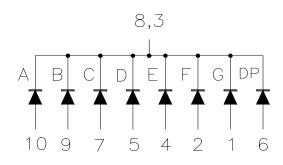
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## **PACKAGE DIMENSIONS**



NOTES: All dimensions are in millimeters. Tolerances are ± 0.25mm(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
4	ANODE E
5	ANODE D
6	ANODE D.P.
7	ANODE C
8	COMMON CATHODE
9	ANODE B
10	ANODE A

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## ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT				
Power Dissipation Per Segment	70	mW				
Peak Forward Current Per Segment	40	mA				
(1/10 Duty Cycle, 0.1ms Pulse Width)	60					
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 1/16 inch Below Seating Plane for 3 Seconds at 260°C						

## ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

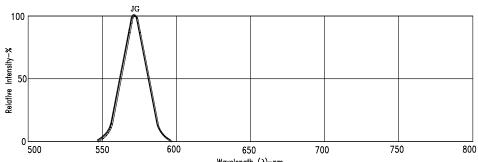
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	$I_{V}$	320	850		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		571		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		572		nm	I <sub>F</sub> =20mA
Forward Voltage. Per Segment	$V_{\mathrm{F}}$		2.05	2.6	V	I <sub>F</sub> =20mA
Reverse Current, Per Segment	$I_R$			100	μΑ	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	Iv-m			2:1		I <sub>F</sub> =1mA

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

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## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



Wavelength (\(\lambda\right)\)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH

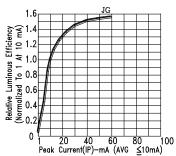
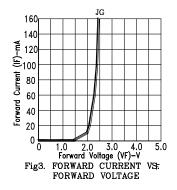
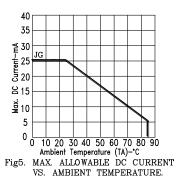
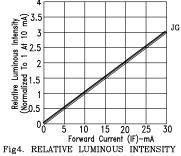


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT





NOTE: JG=AlInGaP Green



VS. FORWARD CURRENT

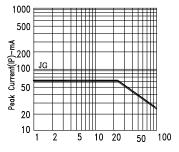


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

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## **Mouser Electronics**

**Authorized Distributor** 

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LITEON:

LTS-4301JG