

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Spec No.: DS30-2001-029** Effective Date: 06/09/2010

Revision: A

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

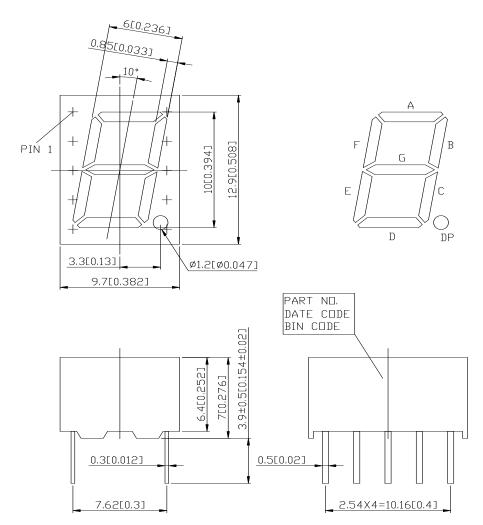
#### **DEVICE**

PART NO.	DESCRIPTION		
AlInGaP Super RED	Common Cathode		
LTS-4301JR	Rt. Hand Decimal		

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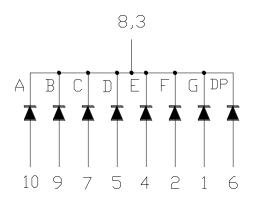
**Property of Lite-On Only** 

#### **PACKAGE DIMENSIONS**



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

#### INTERNAL CIRCUIT DIAGRAM



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**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

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**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)	90	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	520		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		639		nm	IF=20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		631		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	VF		2.0	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	Ir			100	μΑ	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	Iv-m			2:1		I <sub>F</sub> =1mA

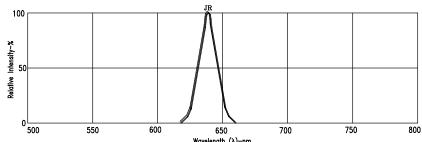
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

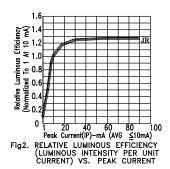
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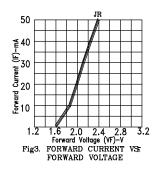
Property of Lite-On Only

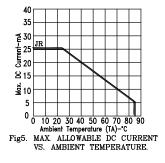
#### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)









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Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

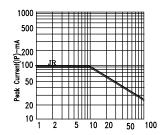


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

NOTE : JR=AlInGaP SUPER RED

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