



**Spec No.: DS30-2001-223** Effective Date: 10/29/2001

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

# LITEON LITE-ON ELECTRONICS, INC.

## Property of Lite-On Only

### **FEATURES**

- \*0.56 inch (14.22 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-5001AJD is a 0.56 inch (14.22 mm) digit height single digit seven-segment display. This device utilizes AlInGaP hyper red 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 HYPER RED	COMMON ANODE			
LTS-5001AJD	RT. HAND DECIMAL			

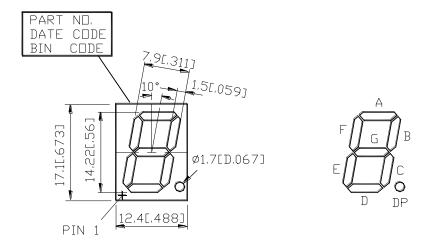
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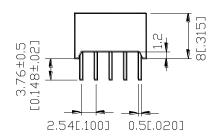
# LITEON

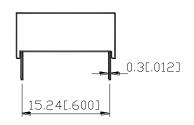
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## PACKAGE DIMENSIONS

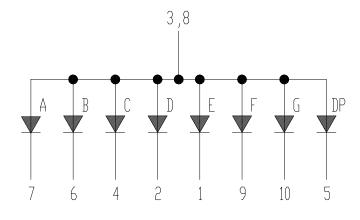






NOTES: All dimensions are in millimeters. Tolerances are  $\pm$  0.25 mm (0.01") unless otherwise noted.

## INTERNAL CIRCUIT DIAGRAM



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## PIN CONNECTION

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

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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 (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 below seating plane.					

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

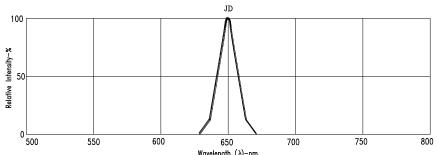
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	320	700		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		650		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		639		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	VF		2.1	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 International De L'Eclairage) eye-response curve.

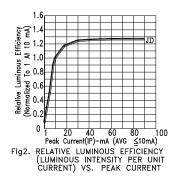
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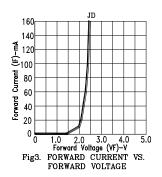
### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

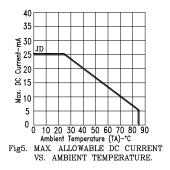
(25°C Ambient Temperature Unless Otherwise Noted)



Wavelength (λ)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH







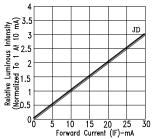


Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

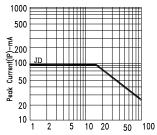


Fig6. MAX PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

NOTE : JD=AlInGaP HYPER RED

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1624 LTC-2621JD LTC-2623WC LTC-4627JD LTD-322G LTD-482PC LTP-1057AHR LTP-1457AKR LTP-3784G-01 LTS-313AP LTS4812SKR-P LTS-547AE LTS-6780P 446010401-3 HV-7W30-6829 DA43-11GWA LDD-A516RI-17 LDD-E305RI LDQ-N3402RI LDQN3606RI LDT-M2804RI 86004CB830 LTP-3862JD LTP-2088AKD LTD-6740P LTS-6880Y LDS-SMC3002RISUGTR LTC-2623E
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