



**Spec No.: DS30-2001-408** Effective Date: 11/17/2001

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

# LITEON LITE-ON ELECTRONICS, INC.

# Property of Lite-On Only

### **FEATURES**

- \*0.3 inch (7.62 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 LTD-323JR is a 0.3 inch (7.62 mm) digit height display. This device utilizes AlInGaP Super Red LED chips, which are made from AlInGaP on a non-transparent GaAs substrate, and has a black face and white segments.

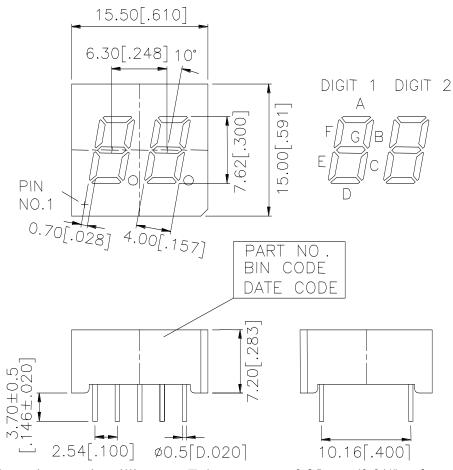
## **DEVICE**

PART NO.	DESCRIPTION		
AlInGaP Super Red			
LTD-323JR	Duplex Common Anode		

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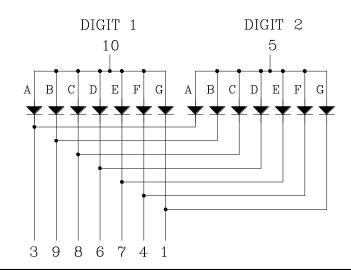
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## **PACKAGE DIMENSIONS**



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

## INTERNAL CIRCUIT DIAGRAM



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# PIN CONNECTION

No	CONNECTION					
1	CATHODE G					
2	NO PIN					
3	CATHODE A					
4	CATHODE F					
5	COMMON ANODE (DIGIT 2)					
6	CATHODE D					
7	CATHODE E					
8	CATHODE C					
9	CATHODE B					
10	COMMON ANODE (DIGIT 1)					

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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

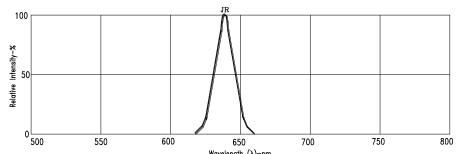
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	200	600		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		639		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		631		nm	I <sub>F</sub> =20mA
Forward Voltage Per 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

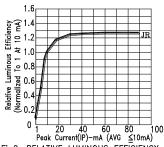
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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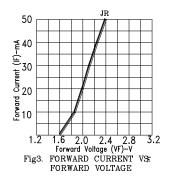
## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

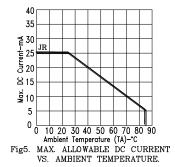
(25°C Ambient Temperature Unless Otherwise Noted)





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





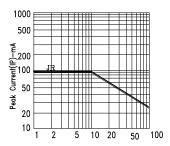


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

NOTE : JR=AlInGaP SUPER RED

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