



**Spec No.: DS30-2000-170** Effective Date: 08/15/2000

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

## LITEON

# LITE-ON ELECTRONICS, INC.

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### **FEATURES**

- \*0.8 inch (20.32 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-3406JS is a 0.8 inch (20.32 mm) height digit display. The device utilizes AlInGaP yellow LED chips which are made from AlInGaP on a non-transparent GaAs substrate, and have light gray face and white segment color.

This low current seven-segment display is designed to perform under low power consumption. It is tested and selected for it's excellent low current characteristics. It can be driven in low current condition and the segments are matched. This driving current as low as 1mA per segment is applicable.

### **DEVICE**

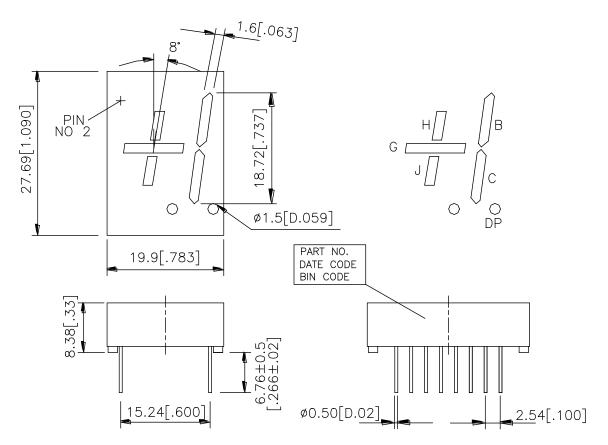
PART NO.	DESCRIPTION			
AlInGaP YELLOW	Universal, ±1 Overflow,			
LTS-3406JS	Rt. & Lt. Hand Decimal			

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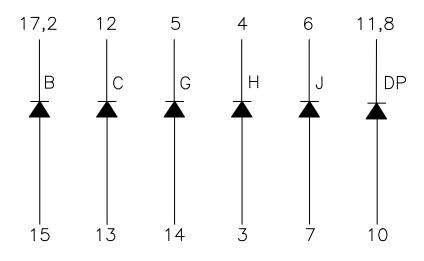
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## PACKAGE DIMENSIONS



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

## INTERNAL CIRCUIT DIAGRAM



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## PIN CONNECTION

No.	CONNECTION				
1	NO PIN				
2	CATHODE B				
3	ANODE H				
4	CATHODE H				
5	CATHODE G				
6	CATHODE J				
7	ANODE J				
8	CATHODE DP				
9	NO PIN				
10	ANODE DP				
11	CATHODE DP				
12	CATHODE C				
13	ANODE C				
14	ANODE G				
15	ANODE B				
16	NO PIN				
17	CATHODE B				
18	NO PIN				

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## ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Segment	40	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	320	700		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		588		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		587		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	VF		2.05	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.

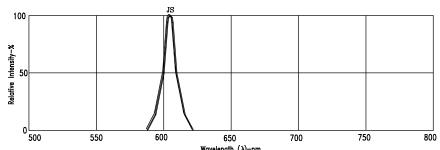
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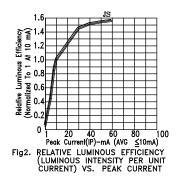
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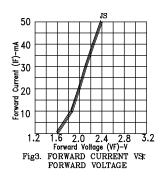
## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

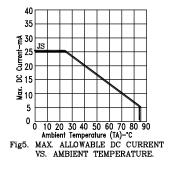
(25°C Ambient Temperature Unless Otherwise Noted)

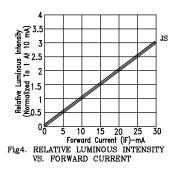


Wavelength (λ)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH









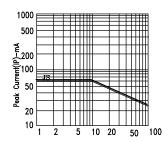


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE : JS=AlinGaP YELLOW (REFRESH RATE 1KHz)

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