### 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.
- \*LOW POWER REQUIRMENT.

#### **DESCRIPTION**

The LTD-4608JG is a 0.4-inch (10-mm) digit height dual digit low current 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.

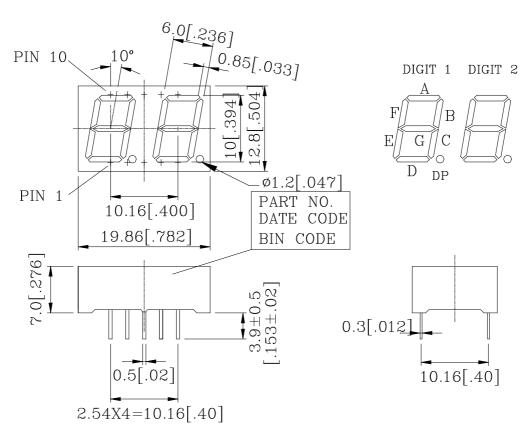
### **DEVICE**

PART NO.	DESCRIPTION		
AlInGaP Green	Dualplex Common Anode		
LTD-4608JG	Rt. Hand Decimal		

PART NO.: LTD-4608JG PAGE: 1 of 5

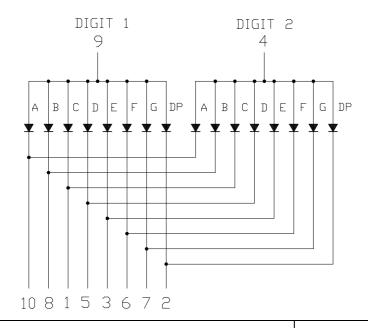
Property of Lite-On Only

#### **PACKAGE DIMENSIONS**



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

#### INTERNAL CIRCUIT DIAGRAM



PART NO.: LTD-4608JG PAGE: 2 of 5

**Property of Lite-On Only** 

### **PIN CONNECTION**

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

3 of 5 PAGE: PART NO.: LTD-4608JG



**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 )	60	mA			
Continuous Forward Current Per Segment	25	mA			
Derating Linear From 25 <sup>o</sup> C Per Segment	0.33	mA/ <sup>0</sup> C			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range	$-35^{\circ}$ C to $+85^{\circ}$ C				
Storage Temperature Range	$-35^{\circ}$ C to $+85^{\circ}$ C				
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C					

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

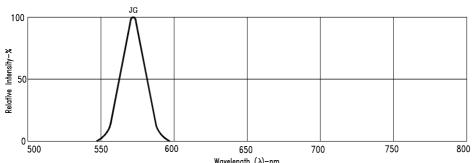
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	320	850		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		571		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		572		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	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.

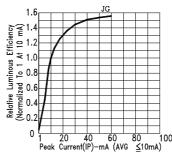
PART NO.: LTD-4608JG PAGE: 4 of 5 Property of Lite-On Only

### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

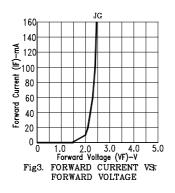


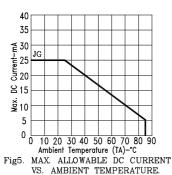
Wavelength (\(\lambda\right)\)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH



Peak Current(IP)—mA (AVG \$10 NU Peak Current(IP)—mA (AVG \$10 NA PEAK CURRENT)

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





JG 10 15 20 25 Forward Current (IF)-mA

Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

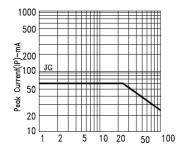


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE : JG=AlInGaP Green

PART NO.: LTD-4608JG PAGE: 5 of 5