

LITE-ON TECHNOLOGY CORPORATION

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-4608B is a 0.4-inch (10-mm) digit height dual digit seven-segment display. This device utilizes blue LED chips, which are made from GaN on a SiC substrate, and has a gray face and white segments.

DEVICE

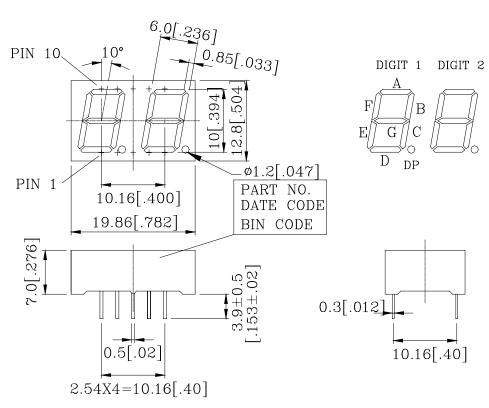
PART NO.	DESCRIPTION			
BLUE	Duplex Common Anode			
LTD-4608B	Rt. Hand Decimal			

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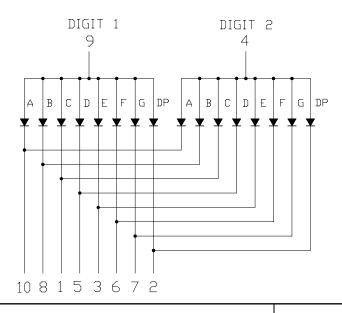
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PACKAGE DIMENSIONS



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 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				

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ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Segment	115	mW			
Peak Forward Current Per Segment	60				
(1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA			
Continuous Forward Current Per Segment	25	mA			
Derating Linear From 25 ^o C Per Segment	0.33	mA/ ⁰ C			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range	-35°C to +85°C				
Storage Temperature Range	-35^{0} C to $+85^{0}$ C				
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 ^o C					

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	1200	3600		μcd	I _F =10mA
Peak Emission Wavelength	λр		428		nm	I _F =20mA
Spectral Line Half-Width	Δλ		65		nm	I _F =20mA
Dominant Wavelength	λd		466		nm	I _F =20mA
Forward Voltage Per Segment	VF		3.8	4.5	V	I _F =20mA
Reverse Current Per Segment	Ir			100	μΑ	V _R =5V
Luminous Intensity Matching Ratio	Iv-m			2:1		I _F =10mA

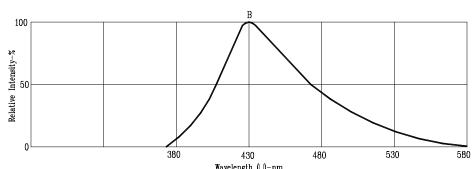
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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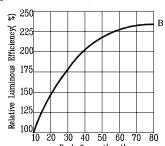
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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

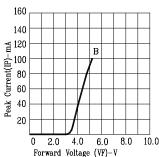
(25°C Ambient Temperature Unless Otherwise Noted)



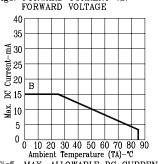
Wavelength (1)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH



Peak Current(mA) Fig2. RELATIVE LUMINOUS EFFICIENCY VS. PEAK FORWARD CURRENT (250us pulse width; 2ms period)



FORWARD CURRENT VS. FORWARD VOLTAGE Fig3.



MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

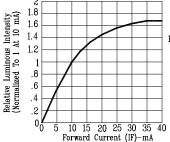


Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

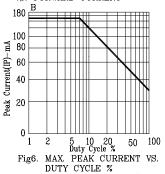


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

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