

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.

DESCRIPTION

The LTS-4801B is a 0.4 inch (10.0 mm) digit height single 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

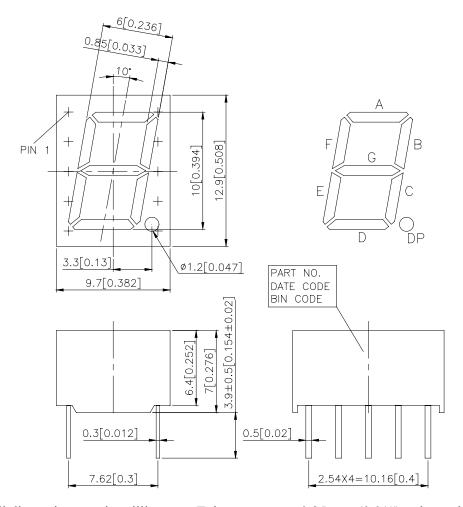
PART NO.	DESCRIPTION			
BLUE	Common Anode			
LTS-4801B	Rt. Hand Decimal			

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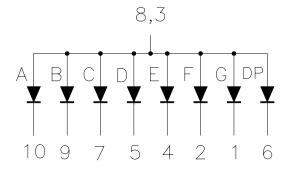
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PACKAGE DIMENSIONS



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 G
2	CATHODE F
3	COMMON ANODE
4	CATHODE E
5	CATHODE D
6	CATHODE D.P.
7	CATHODE C
8	COMMON ANODE
9	CATHODE B
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 (1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA			
Continuous Forward Current Per Segment	25	mA			
Derating Linear From 25 Per Segment	0.33	mA/			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range	-35 to +85				
Storage Temperature Range	-35 to +85				
Solder Temperature: max 260 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	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	V_{F}		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.

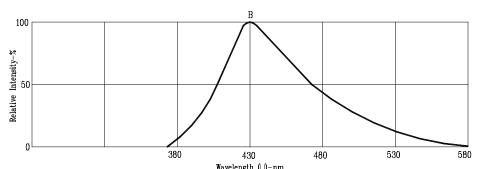
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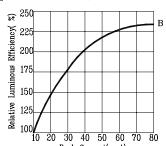
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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

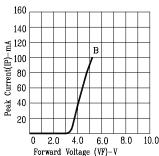
(25°C Ambient Temperature Unless Otherwise Noted)



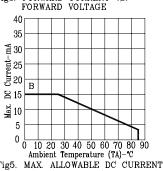
Wavelength (1)-nm.
Fig1. RELATIVE INTENSITY VS. WAVELENGTH



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



Forward Voltage (VF)-V Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE



VS. AMBIENT TEMPERATURE.

0 5 10 15 20 25 30 35 40
Forward Current (IF)-mA
Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

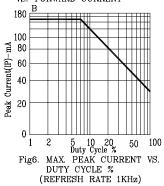
1.8

1.6

1.4

1.2 1 .8 .6 .4 .2

Relative Luminous Intensity (Normalized To 1 At 10 mA)



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