



**Spec No.: DS30-2001-314** Effective Date: 09/07/2010

Revision: B

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

# LITEON

## LITE-ON TECHNOLOGY CORPORATION

## Property of Lite-On Only

#### **FEATURES**

- \*0.4 inch (10 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-4801JF is a 0.4 inch (10 mm) height single digit seven-segment display. This device utilizes AlInGaP yellow orange LED chips, which are made from AlInGaP on a non-transparent GaAs substrate, and has a gray face and white segments.

#### **DEVICE**

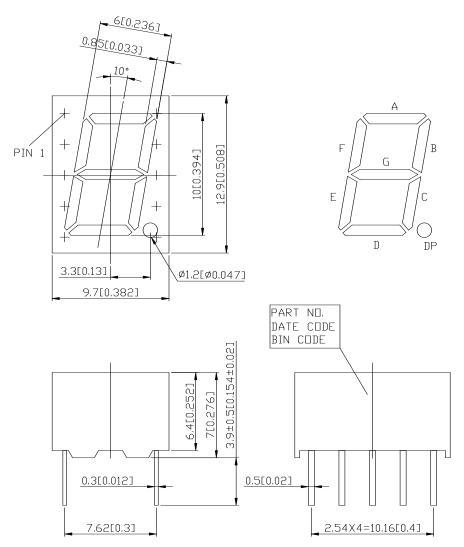
PART NO.	DESCRIPTION			
AlInGaP Yellow Orange	Common Anode			
LTS-4801JF	Rt. Hand Decimal			

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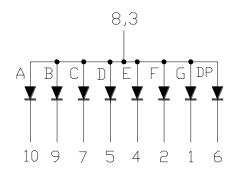
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## PACKAGE DIMENSIONS



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	70	mW				
Peak Forward Current Per Segment	60	mA				
(1/10 Duty Cycle, 0.1ms Pulse Width)						
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 1/16 inch Below Seating Plane for 3 Seconds at 260°C						

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

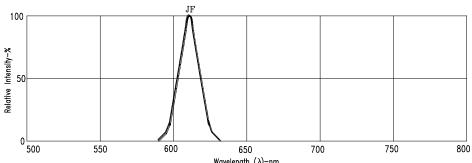
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	IV	200	650		μcd	IF=1mA
Peak Emission Wavelength	λρ		611		nm	IF=20mA
Spectral Line Half-Width	Δλ		17		nm	IF=20mA
Dominant Wavelength	λd		605		nm	IF=20mA
Forward Voltage Per Segment	VF		2.05	2.6	V	IF=20mA
Reverse Current Per Segment	IR			100	μΑ	VR=5V
Luminous Intensity Matching Ratio	IV-m			2:1		IF=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)



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

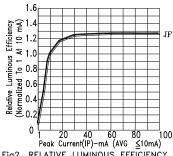
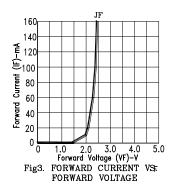
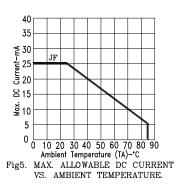


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT





JF 0 5 10 15 20 25 30
Forward Current (IF)-mA
Fig4. RELATIVE LUMINOUS INTENSITY

VS. FORWARD CURRENT

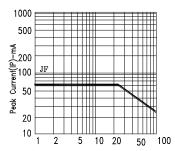


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: JF=AlinGaP YELLOW ORANGE

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Lite-On: