



# **LED Display**

## **Product Data Sheet**

### **LTS-5201AJF**

Spec No.: DS30-2000-152

Effective Date: 09/17/2009

Revision: A

**LITE-ON DCC**

**RELEASE**

**BNS-OD-FC001/A4**

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**LED DISPLAY****LTS-5201AJF****DATA SHEET**

Rev	Description	By
01	ORIGINAL (Refer to contour drawing Revision (-))	<u>Koko Hsu</u> <u>08/15/2000</u>
(Above data for PD and Customer tracking only)		
-	NPPR Received and Upload on OPNC	<u>Koko Hsu</u> <u>08/15/2000</u>
A	According to CSC request min IV 800 ucd Typ 1667 ucd	KITTISAK B. Apr 06/2009

SPEC. NO.: DS30-2000-152D A T E : Apr 06/2009REV. NO. : APAGE NO. : 0 OF 5

## **FEATURES**

- \* 0.56-INCH (14.22-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.
- \* **LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

## **DESCRIPTION**

The LTS-5201AJF is a 0.56inch (14.22mm) height digit display. The device utilizes AlInGaP yellow orange LED chips which are made from AlInGaP on a non-transparent GaAs substrate, and have light gray face and white segments.

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**

<b>PART NO.</b>	<b>DESCRIPTION</b>
AlInGaP YELLOW ORANGE	Common Anode Rt. Hand Decimal
LTS-5201AJF	

2. Pin tip's shift tolerance is  $\pm 0.4$  mm.
3. Foreign material on segment  $\leq 10$  mils
4. Ink contamination (surface)  $\leq 20$  mils
5. Bending  $\leq 1/100$
6. Bubble in segment  $\leq 10$  mils

3,8

A B C D E F G DP

7 6 4 2 1 9 10 5

**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	CATHODE E
2	CATHODE D
3	COMMON ANODE
4	CATHODE C
5	CATHODE D.P.
6	CATHODE B
7	CATHODE A
8	COMMON ANODE
9	CATHODE F
10	CATHODE G

**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)	90	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25 <sup>0</sup> C Per Segment	0.28	mA/ <sup>0</sup> C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35 <sup>0</sup> C to +105 <sup>0</sup> C	
Storage Temperature Range	-35 <sup>0</sup> C to +105 <sup>0</sup> C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 <sup>0</sup> C or temperature of unit (during assembly) not over max. temperature rating above .		

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

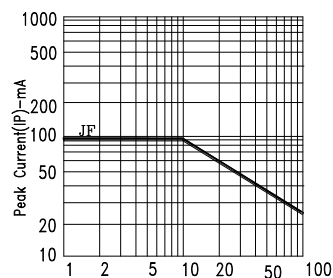
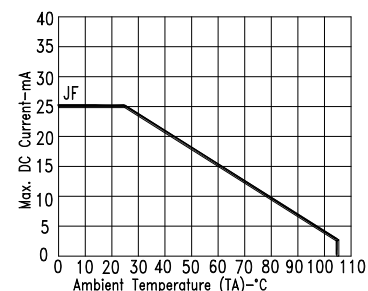
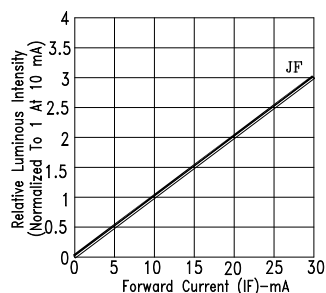
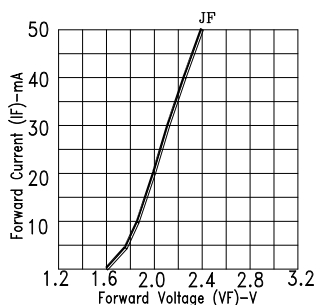
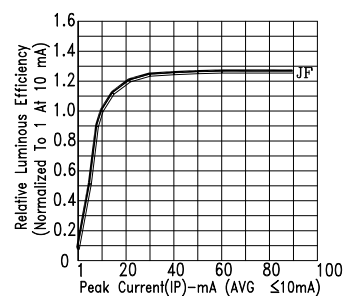
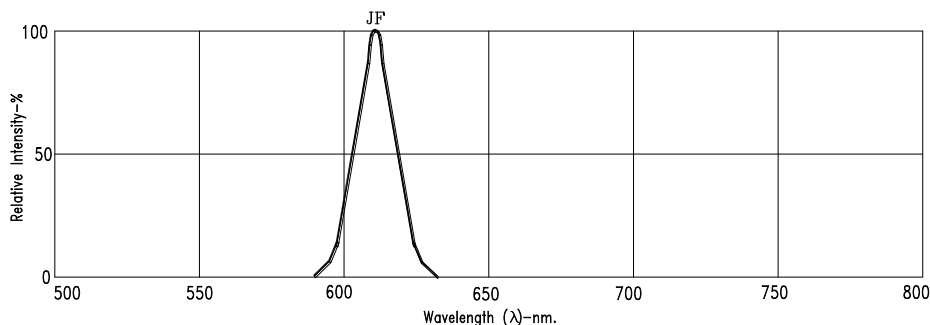
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	800	1667		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λ <sub>p</sub>		611		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		17		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		605		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.05	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	I <sub>v</sub> -m			2:1		I <sub>F</sub> =1mA

Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L' Eclariage) eye-response curve.

2. Cross talk specification ≅2.5%

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : JF=AlInGaP YELLOW ORANGE