



LED Display

Product Data Sheet

LTS-4801AKF-20J

Spec No.: DS30-2009-0075

Effective Date: 09/02/2009

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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LED DISPLAY**LTS-4801AKF-20J**
DATASHEET

<u>Rev</u>	<u>Description</u>	<u>By</u>
01	ORIGINAL (Refer to contour drawing Revision (-))	<u>KITTISAK B.</u> <u>June 16/2009</u>
(Above data for PD and Customer tracking only)		
-	NPPR Received and Upload on OPNC	<u>KITTISAK B.</u> <u>June 30/2009</u>

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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.
- * **LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

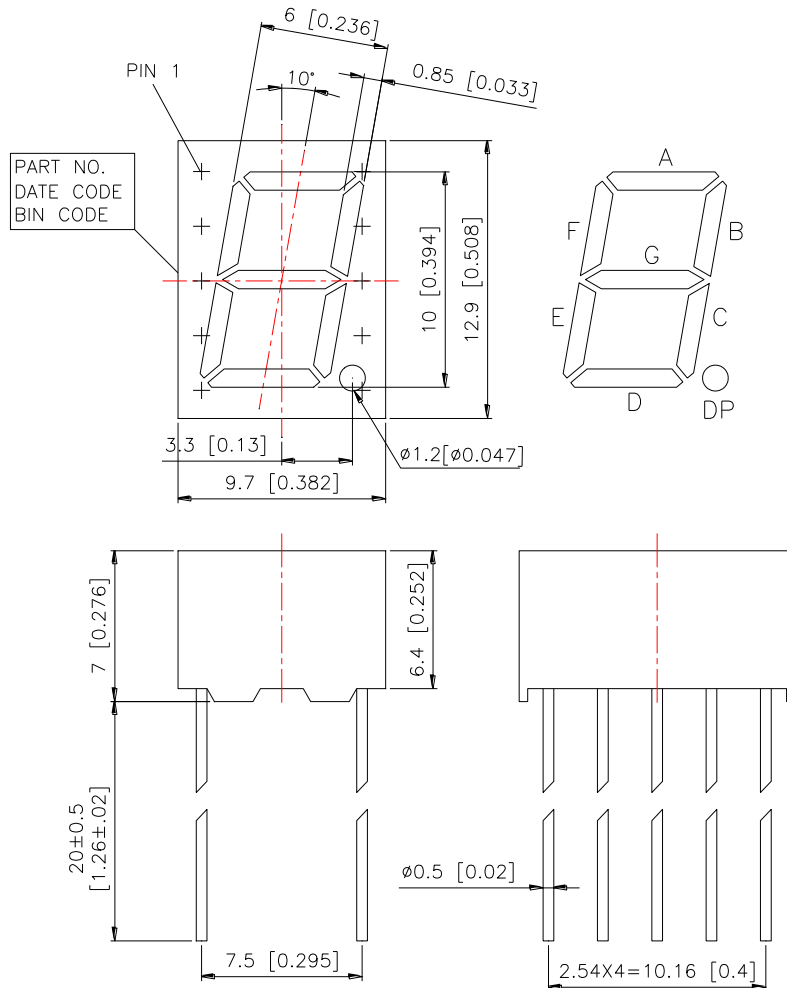
DESCRIPTION

The LTS-4801AKF-20J 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-4801AKF-20J	Rt. Hand Decimal

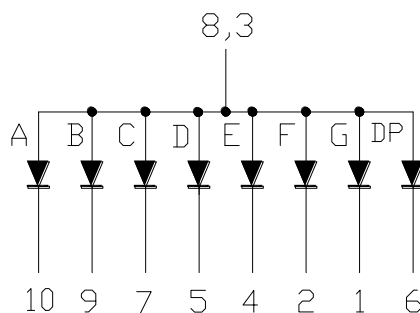
PACKAGE DIMENSIONS



NOTES: 1. All dimensions are in millimeters. Tolerances are $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.

2. Pin tip's shift tolerance is $\pm 0.4\text{ mm}$.
3. Foreign material on segment $\leq 10\text{mils}$
4. Ink contamination (surface) $\leq 20\text{mils}$
5. Bending $\leq 1\%$ of reflector length
6. Bubble in segment $\leq 10\text{mils}$

INTERNAL CIRCUIT DIAGRAM



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

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°C Per Segment	0.28	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Solder Conditions: 1/16 inch below seating plane for 3 seconds at 260°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	IV	500	1300		μcd	IF=1mA
Peak Emission Wavelength	λp		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	μA	VR=5V
Luminous Intensity Matching Ratio (Similar Light Area)	IV-m			2:1		IF=1mA

Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.
2. Cross talk specification $\leq 2.5\%$

BIN TABLE

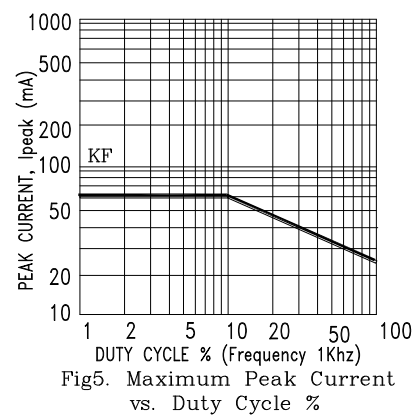
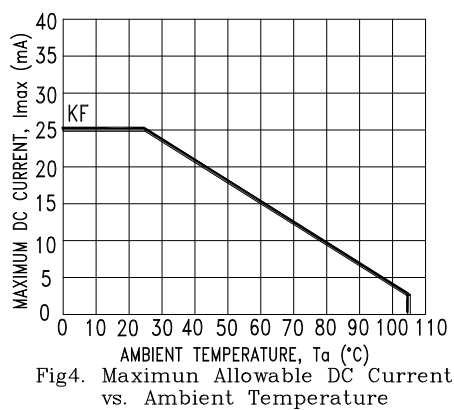
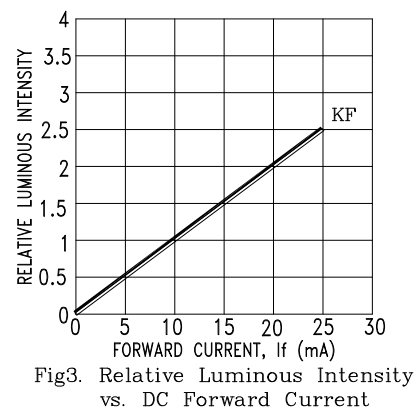
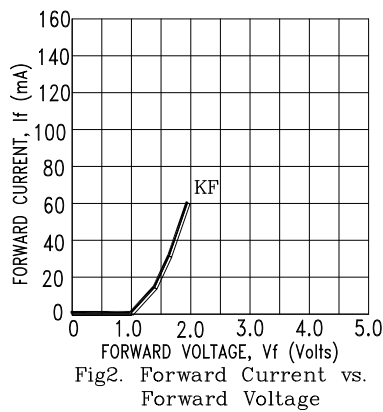
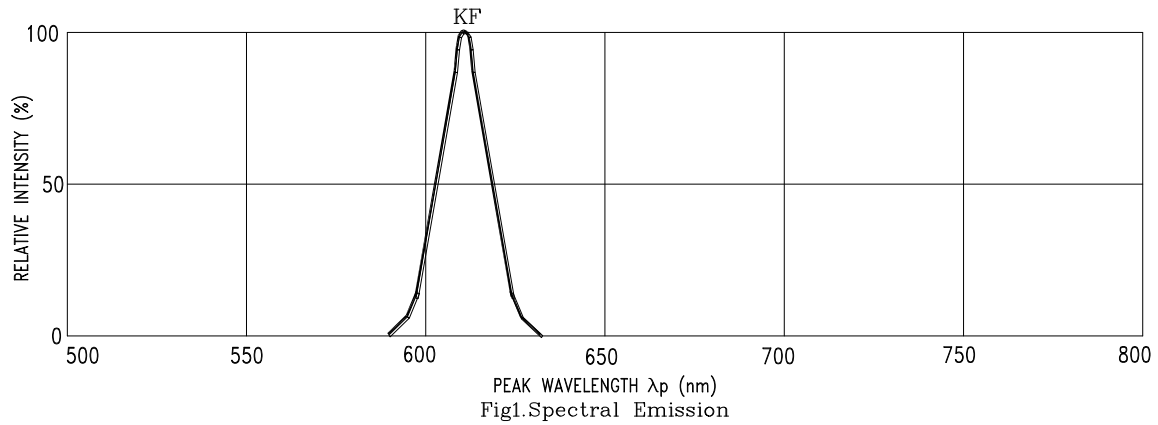
BIN TEBLE 2 FOR LUMINOUS INTENSITY

BIN GRADE	G	H	J	K	L
RANGE(ucd)IF=1mA	501-800	801-1300	1301-2100	2101-3400	3401-5400

The Luminous Intensity Tolerance $\pm 15\%$ percentage

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KF=AlInGaP YELLOW ORANGE