



# LED Display Product Data Sheet LTS-10804KF

Spec No.: DS30-2009-0133

Effective Date: 03/04/2014

Revision: A

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**LED DISPLAY  
LTS-10804KF**

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LTS-10804KF

<u>Rev</u>	<u>Description</u>	<u>By</u>	<u>Date</u>
01	Preliminary SPEC	MINALIN	09-Sep-2009
<b>Above data for PD and Customer tracking only</b>			
-	NPPR Received and Upload on system	MINALIN	09-Sep-2009
A	Add cosmetics spec as note on page 3 of 6 Add Operating and Storage Temperature Range to -35°C to +105°C And VF	ANON/ James	26-Feb-2014

## LED DISPLAY LTS-10804KF

### 1. Description

The LTS-10804KF is a 1.0 inch (25.4 mm) digit height single digit low current seven-segment display. This device uses AS-AllnGaP yellow orange LED chips (AllnGaP epi on GaAs substrate). The display has a black face and white segments.

#### 1.1 Features

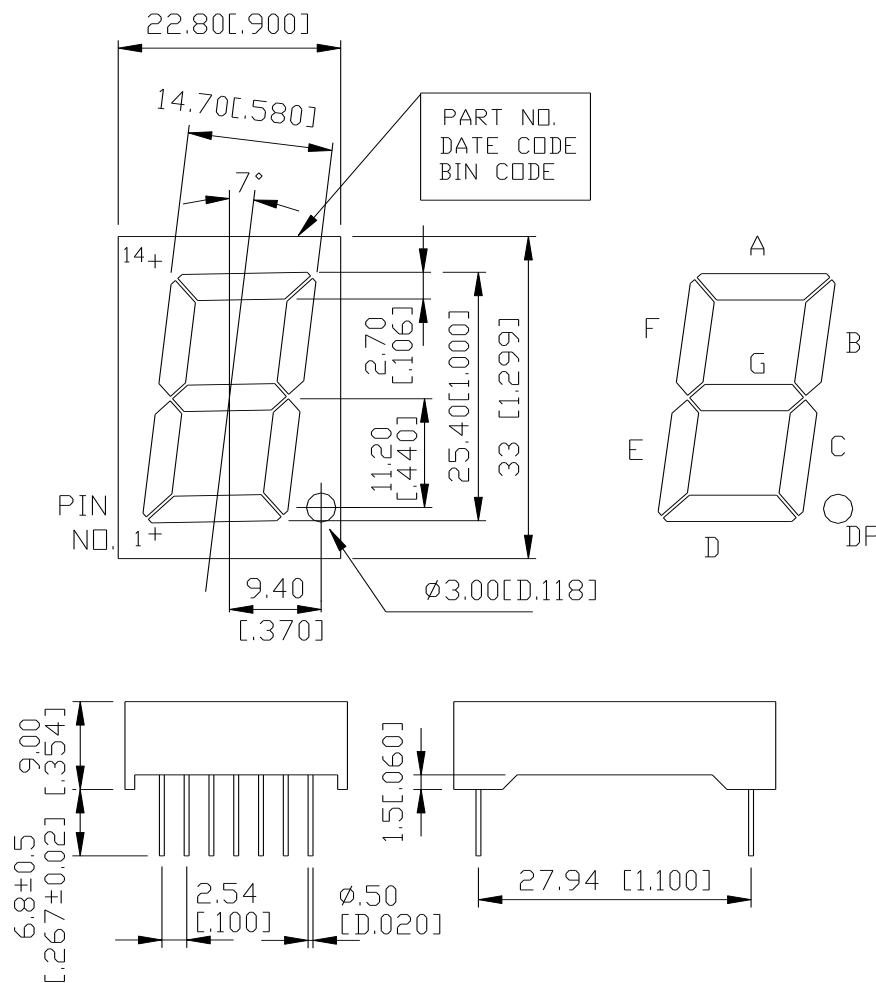
- 1.0 inch (25.40 mm) DIGIT HEIGHT
- CONTINUOUS UNIFORM SEGMENTS
- LOW POWER REQUIREMENT
- EXCELLENT CHARACTERS APPEARANCE
- HIGH BRIGHTNESS & HIGH CONTRAST
- WIDE VIEWING ANGLE
- SOLID STATE RELIABILITY
- CATEGORIZED FOR LUMINOUS INTENSITY
- LEAD-FREE PACKAGE (ACCORDING TO ROHS)

#### 1.2 Device

Part No	Description
AllnGaP Yellow Orange	COMMON ANODE
LTS-10804KF	RT. HAND DECIMAL

**LED DISPLAY  
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**2. Package Dimensions**

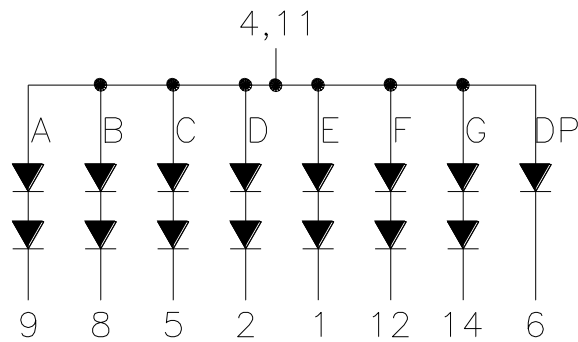


**Notes :**

1. All dimensions are in millimeters. Tolerances are  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
2. Foreign materials on segment  $\leq 20\text{mils}$
3. Bubble in segment  $\leq 20\text{mils}$
4. Bending  $\leq 1\%$  of reflector length
5. Ink contamination (surface)  $\leq 20\text{mils}$
6. Pin tip's shift tolerance is  $\pm 0.40\text{ mm}$ .
7. Recommend the best pcb hole : diameter 1.00 mm

**LED DISPLAY  
LTS-10804KF**

**3. Internal Circuit Diagram**



**4. Pin Connection**

No	Connection
1	CATHODE E
2	CATHODE D
3	NO PIN
4	COMMON ANODE
5	CATHODE C
6	CATHODE D.P.
7	NO PIN
8	CATHODE B
9	CATHODE A
10	NO PIN
11	COMMON ANODE
12	CATHODE F
13	NO PIN
14	CATHODE G

## LED DISPLAY LTS-10804KF

### 5. Rating and Characteristics

#### 5.1. Absolute Maximum Rating at Ta=25°C

Parameter	Maximum Rating	Unit
Power Dissipation Per Segment	134	mW
Peak Forward Current Per Segment ( 1/10 Duty Cycle, 0.1ms Pulse Width )	60	mA
Continuous Forward Current Per Segment Derating Linear From 25°C Per Segment	25 0.33	mA mA/°C
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	

Solder Condition: 1/16 inch below seating plane for 3 seconds at 260°C or temperature of unit (during assembly) not over max. temperature rating above

#### 5.2. Electrical / Optical Characteristics at Ta=25°C

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Test Condition
Average Luminous Intensity Per Segment	IV	420	1400		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(DP)	VF		4.20 (2.1)	5.20 (2.6)	V	IF=20mA
Reverse Current Per Segment (DP) <sup>(2)</sup>	IR			100	μA	VR=10V (5V)
Luminous Intensity Matching Ratio (Similar Light Area)	IV-m			2:1		IF=10mA

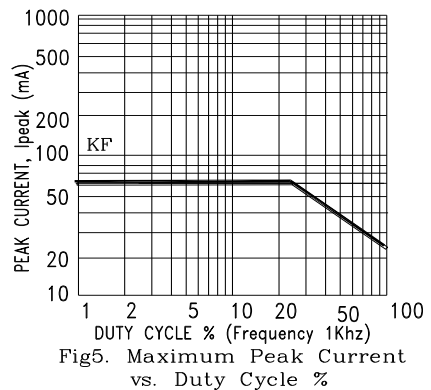
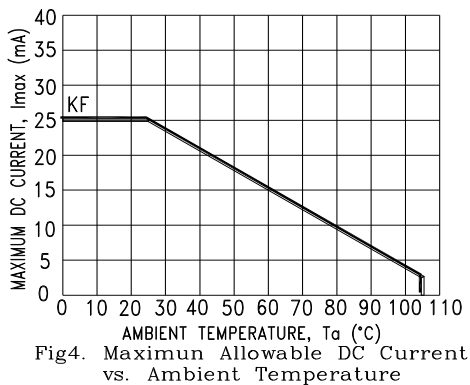
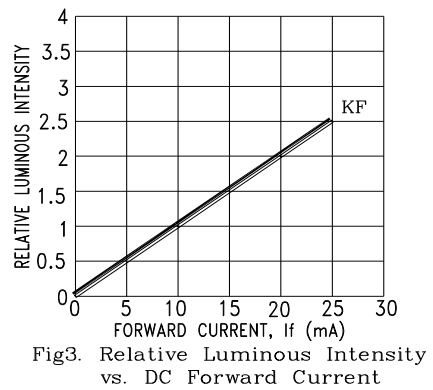
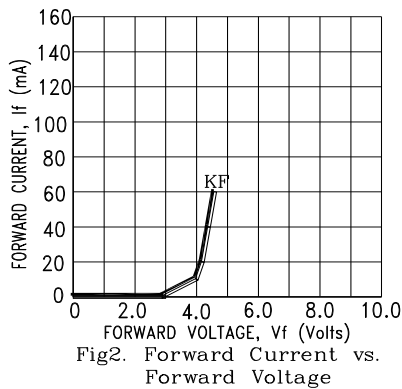
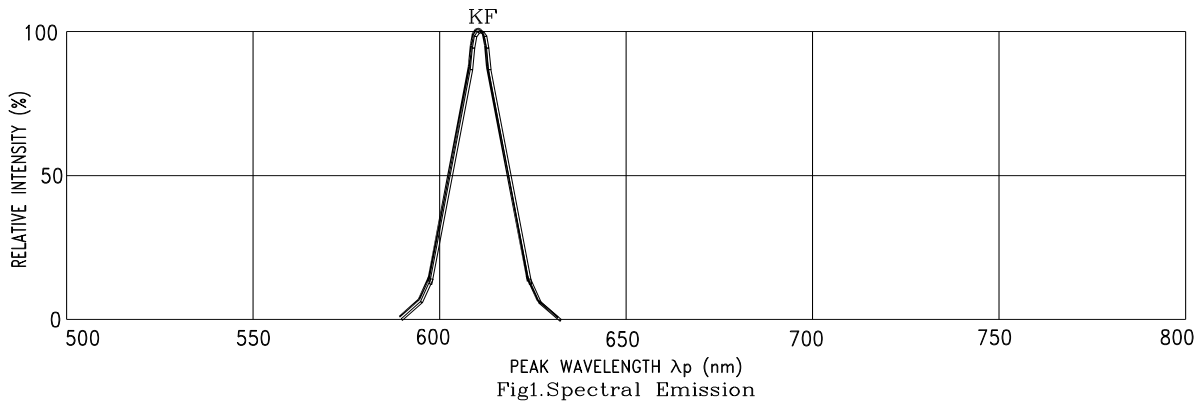
#### Notes :

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission International De L'Eclairiage) eye-response curve
- Reverse voltage is only for IR test. It cannot continue to operate at this situation
- Cross talk specification  $\leq 1.0\%$

**LED DISPLAY  
LTS-10804KF**

**5.3. Typical Electrical / Optical Characteristics Curves**

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KF=AlInGaP YELLOW ORANGE