



# LED Display Product Data Sheet LTD-5721AKF

Spec No.: DS30-2006-043

Effective Date: 07/16/2008

Revision: C

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

**LED DISPLAY****LTD-5721AKF**  
**DATA SHEET**

<b>Rev</b>	<b>Description</b>	<b>By</b>
-	ORIGINAL	PHANOMKORN MAY 20,2006
A	CHANGE LIGHT GRAY FACE TO DARK GRAY FACE	PHANOMKORN AUGUST 31,2006
B	REVISE THE TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES ON PAGE 5/5	PHANOMKORN JANUARY 5,2008
C	CHANGE THE TEST CONDITION OF AVERAGE LUMINOUS INTENSITY ON PAGE 4/5 FROM 1mA TO 20 mA	PHANOMKORN JULY 7, 2008

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## **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)**

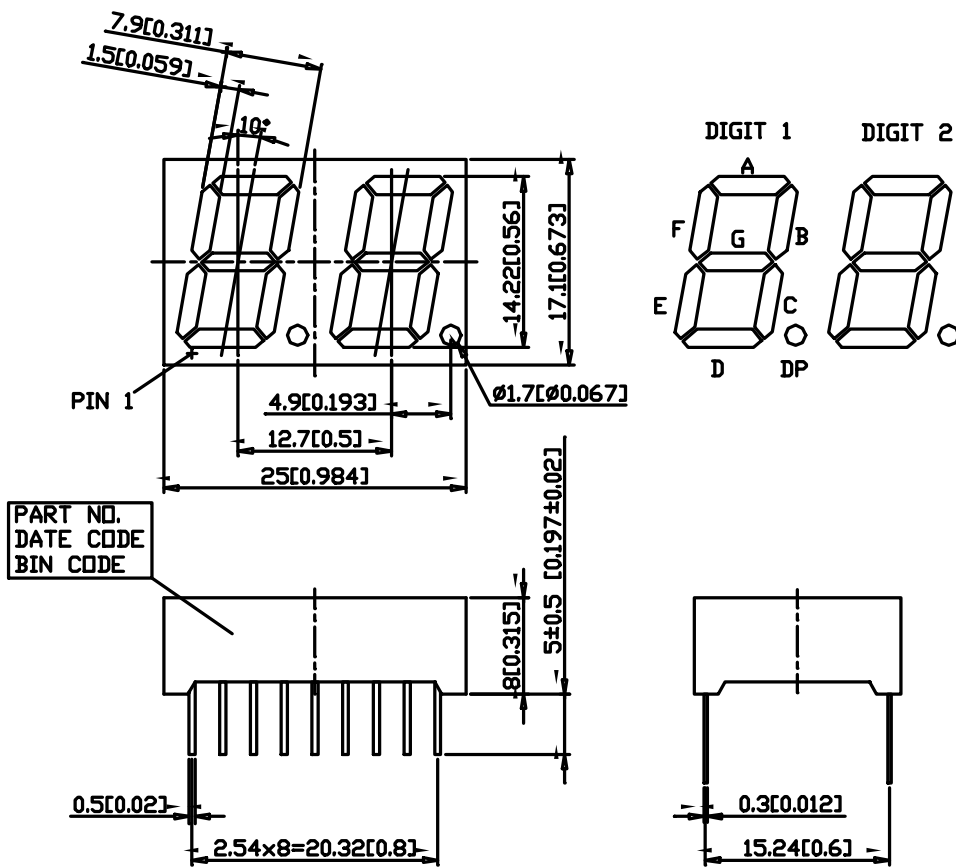
## **DESCRIPTION**

The LTD-5721AKF is a 0.56 inch (14.22 mm) height digit display. The device utilizes AlInGaP yellow orange LED chips which are made from AlInGaP on a non-transparent GaAs substrate, and have gray face and white segment color.

## **DEVICE**

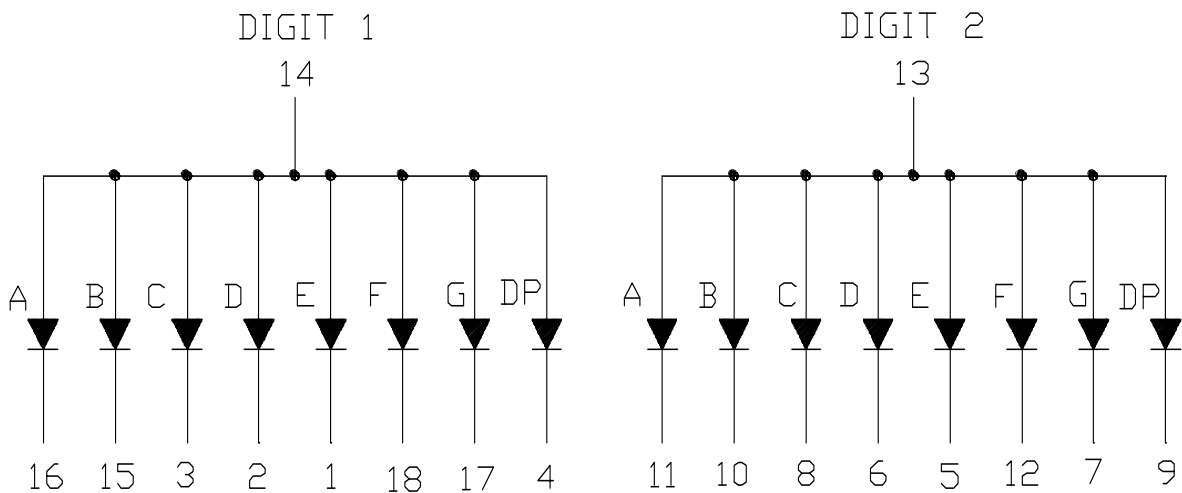
<b>PART NO</b>	<b>DESCRIPTION</b>
AllInGaP Yellow Orange	Common Anode
LTD-5721AKF	Rt. Hand Decimal

## PACKAGE DIMENSIONS



- NOTES: 1. All dimensions are in millimeters. Tolerances are  $\pm 0.25$  mm unless otherwise note.  
 2. Pin tip's shift tolerance is  $\pm 0.4$  mm.

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

<b>No</b>	<b>CONNECTION</b>
1	CATHODE E (DIGIT 1)
2	CATHODE D (DIGIT 1)
3	CATHODE C (DIGIT 1)
4	CATHODE D.P. (DIGIT 1)
5	CATHODE E (DIGIT 2)
6	CATHODE D (DIGIT 2)
7	CATHODE G (DIGIT 2)
8	CATHODE C (DIGIT 2)
9	CATHODE D.P. (DIGIT 2)
10	CATHODE B (DIGIT 2)
11	CATHODE A (DIGIT 2)
12	CATHODE F (DIGIT 2)
13	COMMON ANODE (DIGIT 2)
14	COMMON ANODE (DIGIT 1)
15	CATHODE B (DIGIT 1)
16	CATHODE A (DIGIT 1)
17	CATHODE G (DIGIT 1)
18	CATHODE F (DIGIT 1)

**ABSOLUTE MAXIMUM RATING AT TA=25°C**

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle)	60	mA
Continuous Forward Current Per Segment	25	mA
Forward Current Derating from 25 <sup>0</sup> C	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	
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260 <sup>0</sup> C or of temperature unit (during assembly) not over max. temperature rating above.		

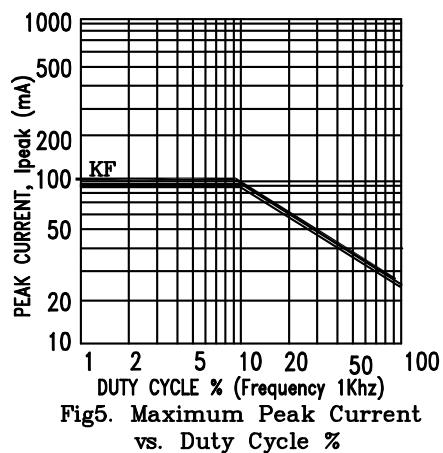
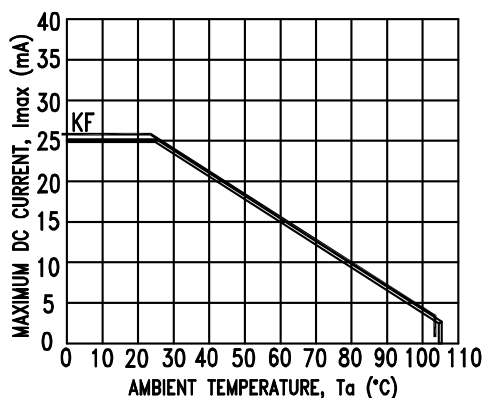
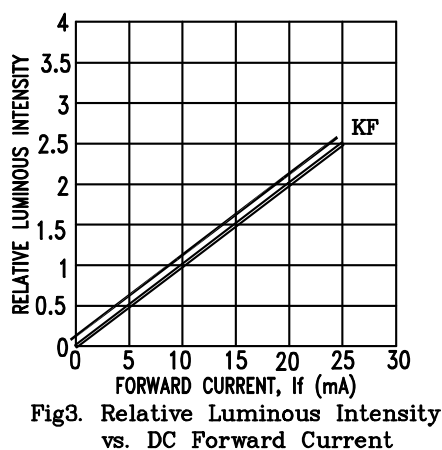
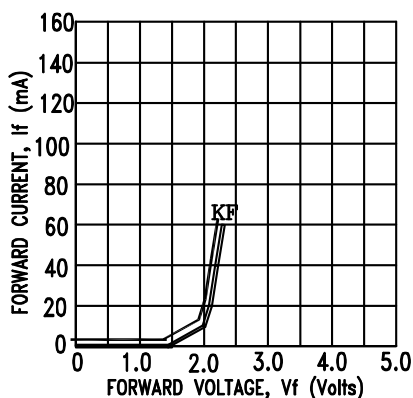
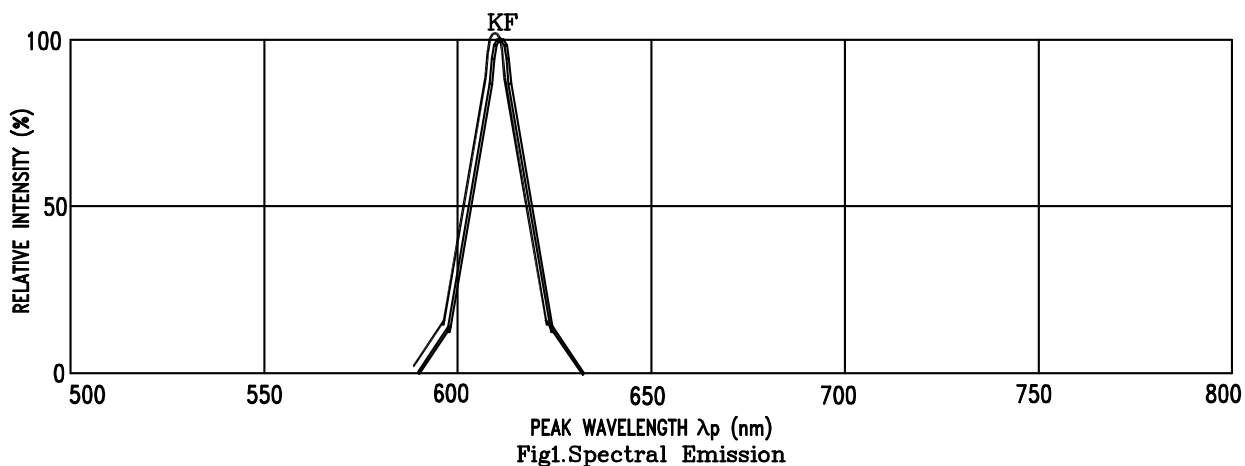
**ELECTRICAL / OPTICAL CHARACTERISTICS AT TA=25°C**

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	43750	70000		μcd	I <sub>F</sub> =20mA
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 (Similar Light Area)	I <sub>v-m</sub>			2:1		I <sub>F</sub> = 20mA

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

## TIPIGSAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KF=AlInGaP YELLOW ORANGE