LITEON
OPTOELECTRONICS

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

Rev	Description	By
-	ORIGINAL	PHANOMKORN MAY 20,2006
A	CHANGE LIGHT GRAY FACE TO DARK GRAY FACE	PHANOMKORN AUGUST 31,2006
B	REVISE THE TYPIGSAL 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

SPEC. NO.: DS30-2006-043

D A T E : July 7, 2008

REV. NO. : C

PAGE 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)**

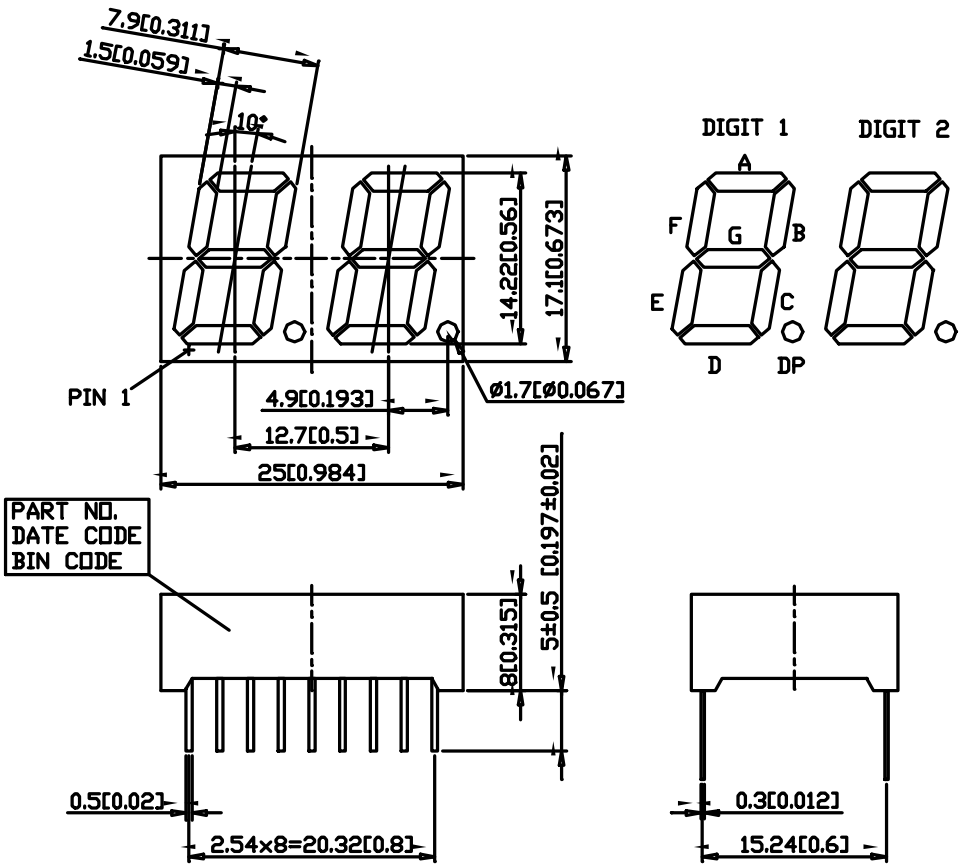
DESCRIPTION

The 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

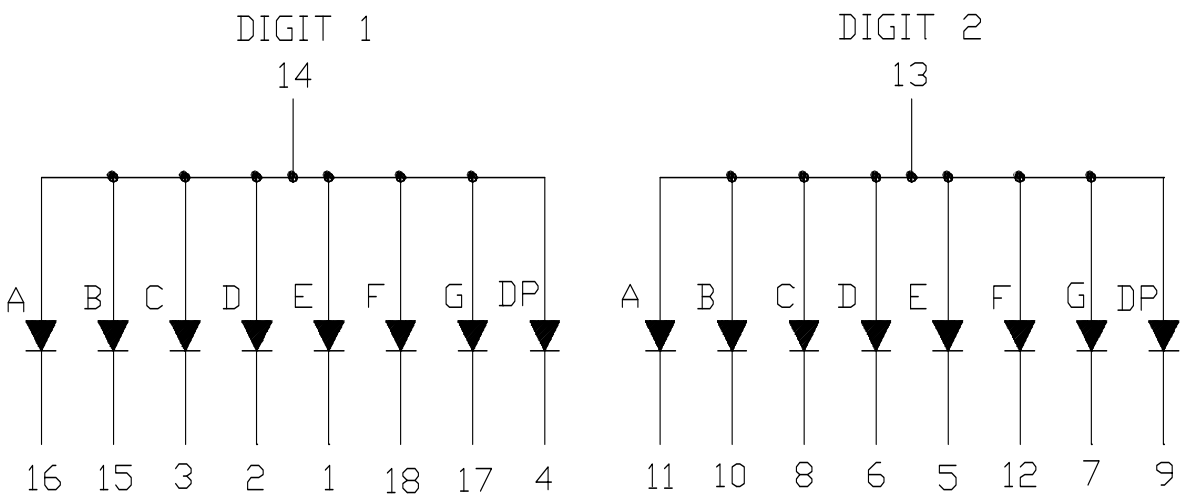
PART NO	DESCRIPTION
AlInGaP Yellow Orange	Common Anode
LTD-5721AKF	Rt. Hand Decimal

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No	CONNECTION
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 Forward Current Derating from 25°C	25 0.28	mA mA/℃
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35℃ to +105℃	
Storage Temperature Range	-35℃ to +105℃	
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°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_V	43750	70000		μcd	I_F=20mA
Peak Emission Wavelength	λp		611		nm	I_F = 20mA
Spectral Line Half-Width	Δλ		17		nm	I_F = 20mA
Dominant Wavelength	λd		605		nm	I_F = 20mA
Forward Voltage Per Segment	V_F		2.05	2.6	V	I_F = 20mA
Reverse Current Per Segment	I_R			100	μA	V_R = 5V
Luminous Intensity Matching Ratio (Similar Light Area)	I_V-m			2:1		I_F = 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.

TYPIGSAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

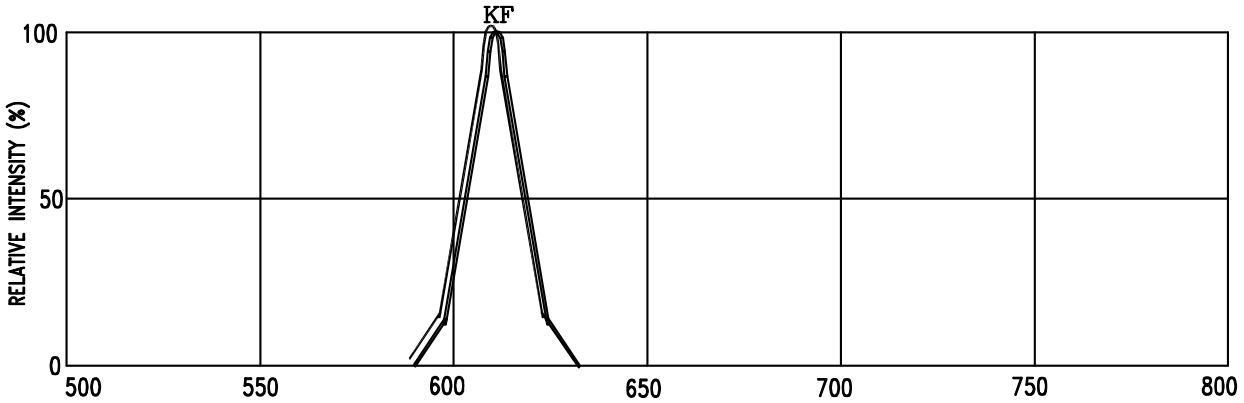


Fig1.Spectral Emission

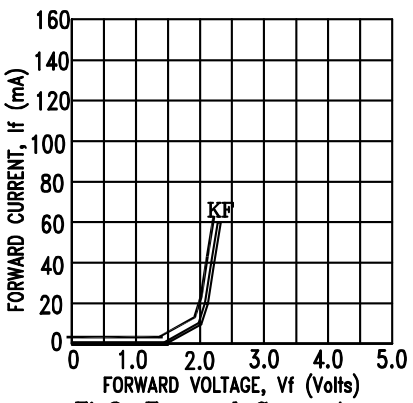


Fig2. Forward Current vs. Forward Voltage

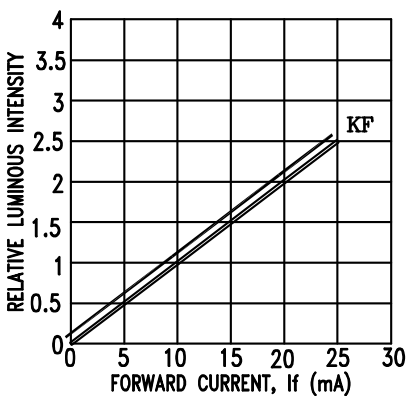


Fig3. Relative Luminous Intensity vs. DC Forward Current

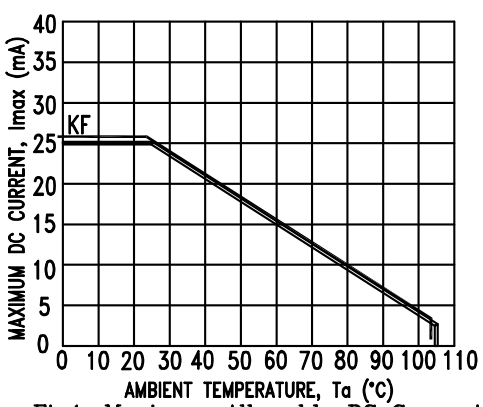


Fig4. Maximun Allowable DC Current vs. Ambient Temperature

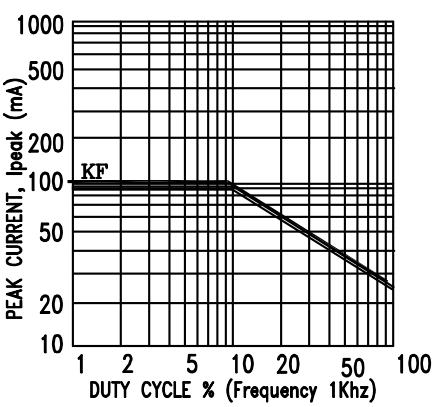


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE : KF=AlInGaP YELLOW ORANGE