



LED Display Product Data Sheet LTD-4608KF

Spec No.: DS30-2006-044

Effective Date: 07/16/2008

Revision: B

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY**LTD-4608KF**
DATA SHEET

Rev	Description	By
-	ORIGINAL	PHANOMKORN MAY 20,2006
A	REVISE MIN IV ON PAGE 4/5	PHANOMKORN NOVEMBER 28,2007
B	CHANGE THE TEST CONDITION OF AVERAGE LUMINOUS INTENSITY ON PAGE 4/5 FROM 1mA TO 20 mA	PHANOMKORN JULY 07,2008

SPEC. NO.: DS30-2006-044DATE : JULY 07,2008REV. NO. : BPAGE NO. : 0 OF 5

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).**

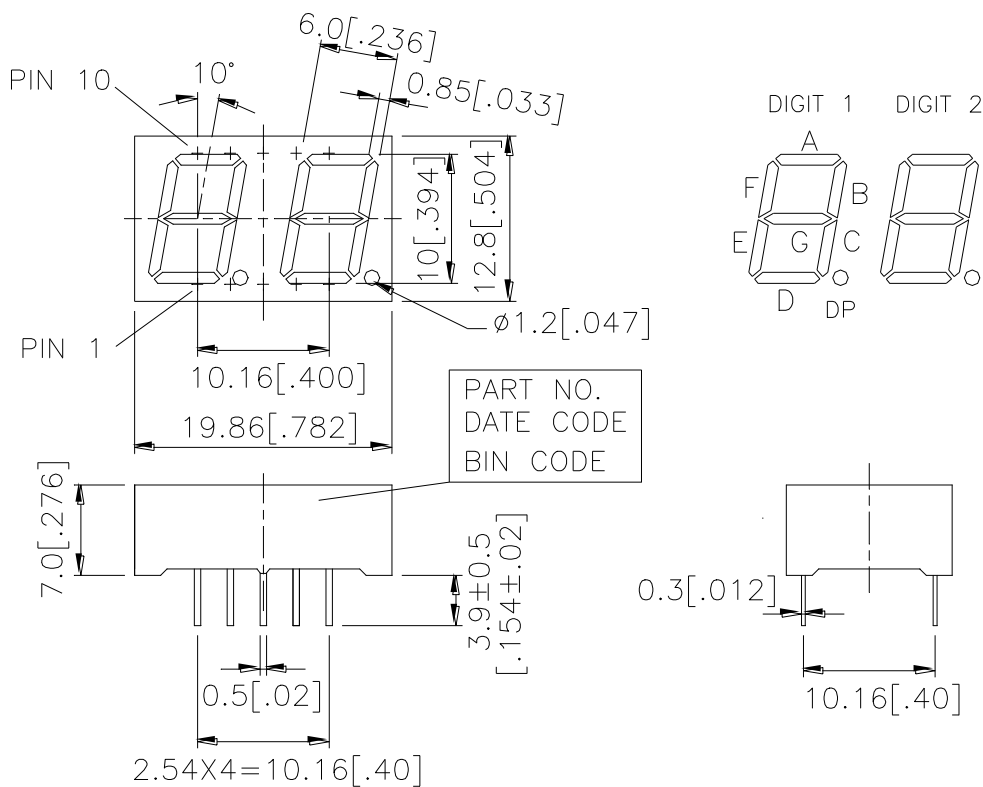
DESCRIPTION

The LTD-4608KF is a 0.4 inch (10 mm) digit height dual digit seven-segment display. This device utilizes AllnGaP yellow orange LED chips, which are made from AllnGaP on a non-transparent GaAs substrate, and has a gray face and white segments.

DEVICE

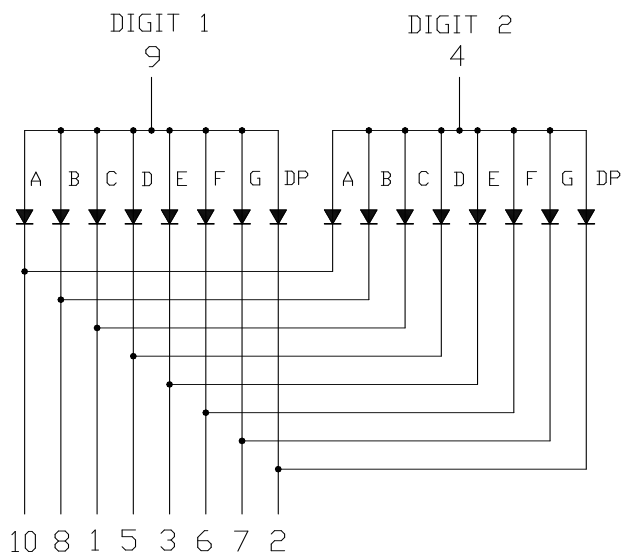
PART NO.	DESCRIPTION
AllnGaP Yellow Orange	Duplex Common Anode
LTD-4608KF	Rt. Hand Decimal

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 C
2	CATHODE D.P.
3	CATHODE E
4	COMMON ANODE (DIGIT 2)
5	CATHODE D
6	CATHODE F
7	CATHODE G
8	CATHODE B
9	COMMON ANODE (DIGIT 1)
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 Derating Linear From 25°C Per Segment	25 0.28	mA 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°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 _v	27520	44000		μcd	I _F =20mA
Peak Emission Wavelength	λ _p		611		nm	I _F =20mA
Spectral Line Half-Width	Δλ		17		nm	I _F =20mA
Dominant Wavelength	λ _d		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 (Commission Internationale De L'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

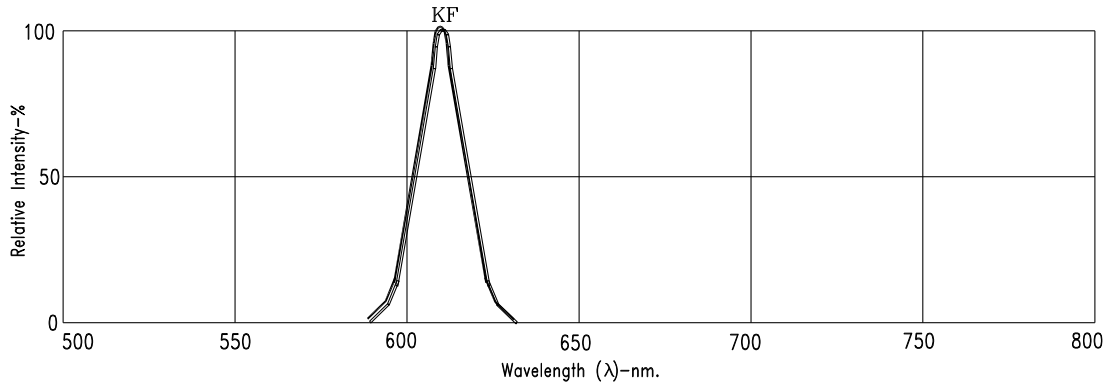


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

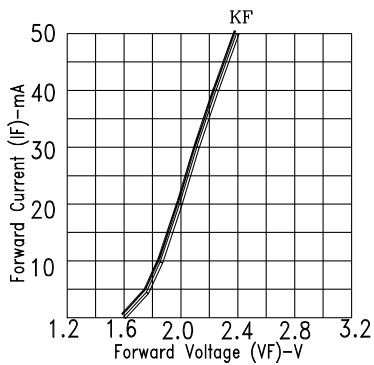


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

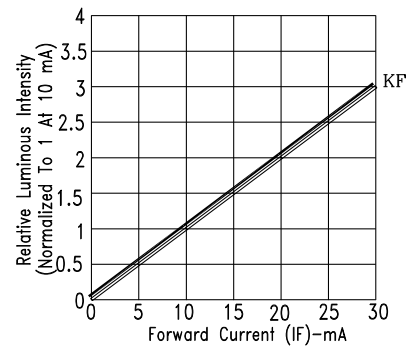


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

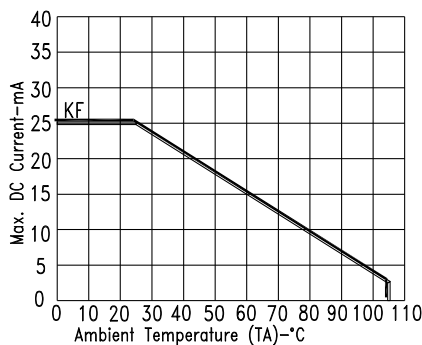


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

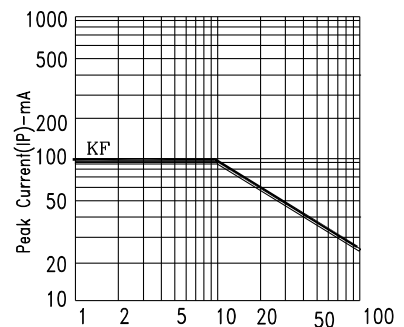


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE : KF=AllnGap YELLOW ORANGE