LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTD-6740KD-06J

Spec No.: DS30-2012-0103

Effective Date: 12/07/2012

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITE-ON Technology Corp. / Optoelectronics
No.90,Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C.
Tel: 886-2-2222-6181 Fax: 886-2-2221-1948 / 886-2-2221-0660
http://www.liteon.com/opto

LED DISPLAY

LTD-6740KD-06J
DATA SHEET

Rev	Description	By
01	RDR Original Spec	Phanomkorn July 27, 2012
02	Change pin length from 10.0mm to 10.5mm (customer's request)	Phanomkorn August 13, 2012
03	- Change pin length from 10.5mm to 11.0mm - Add packing spec on page 6 of 6	Phanomkorn August 31, 2012
04	Change pin length from 11.0mm to 10.0mm	Phanomkorn September 07, 2012
-	NPPR Original Spec	Phanomkorn September 17, 2012

SPEC NO. : DS30-2012-0094

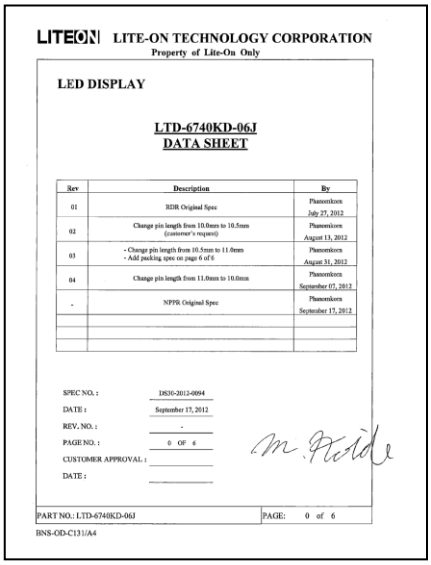
DATE : September 17, 2012

REV. NO. : -

PAGE NO. : 0 OF 6

CUSTOMER APPROVAL :

DATE :


LITEON LITE-ON TECHNOLOGY CORPORATION
Property of Lite-On Only

LED DISPLAY

LTD-6740KD-06J
DATA SHEET

Rev	Description	By
01	RDR Original Spec	Phanomkorn July 27, 2012
02	Change pin length from 10.0mm to 10.5mm (customer's request)	Phanomkorn August 13, 2012
03	- Change pin length from 10.5mm to 11.0mm - Add packing spec on page 6 of 6	Phanomkorn August 31, 2012
04	Change pin length from 11.0mm to 10.0mm	Phanomkorn September 07, 2012
-	NPPR Original Spec	Phanomkorn September 17, 2012

SPEC NO. : DS30-2012-0094
DATE : September 17, 2012
REV. NO. : -
PAGE NO. : 0 OF 6
CUSTOMER APPROVAL :
DATE :

PART NO.: LTD-6740KD-06J PAGE: 0 of 6
BNS-OD-C131/A4

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)

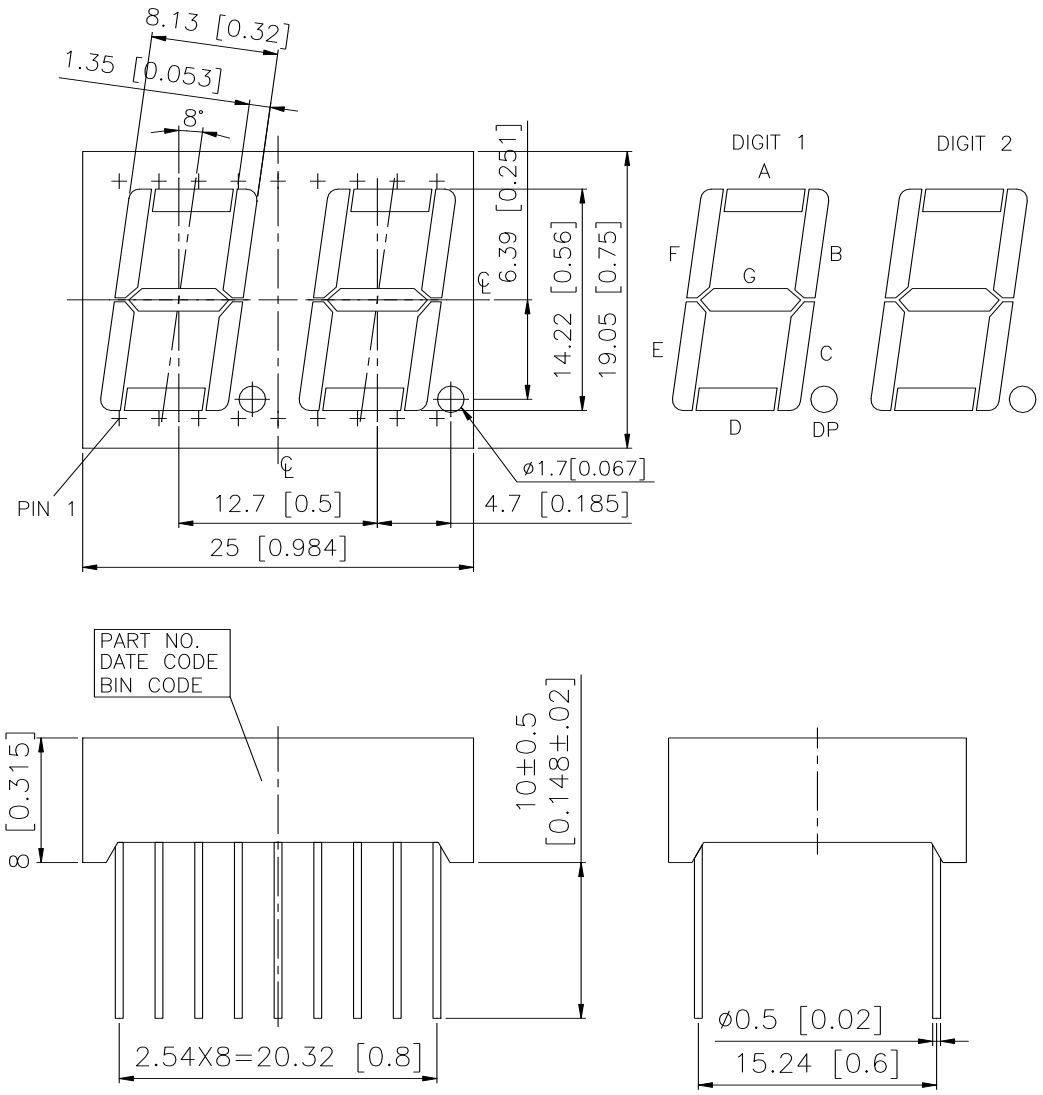
DESCRIPTION

The LTD-6740KD-06J is a 0.56 inch (14.22 mm) digit height dual digit seven-segment display. This device utilizes AlInGaP hyper red 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 HYPER RED	Common Cathode
LTD-6740KD-06J	Rt. Hand Decimal

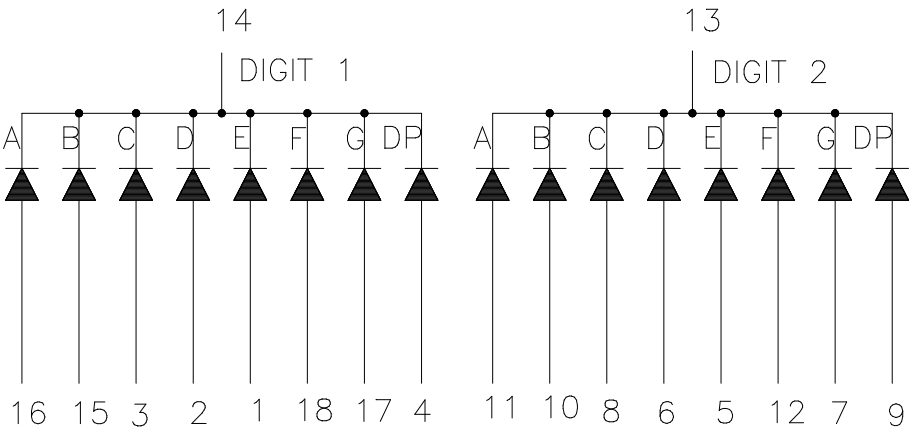
PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01“) unless otherwise noted.
2. Pin tip’s shift tolerance is ± 0.4 mm.
3. Recommend the best PCB hole: Ø 1.0mm
4. Foreign material on segment ≦ 10mils
5. Ink contamination (surface) ≦ 20mils
6. Bending ≦ 1/100
7. Bubble in segment ≦ 10mils

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No.	CONNECTION
1	ANODE E (DIGIT 1)
2	ANODE D (DIGIT 1)
3	ANODE C (DIGIT 1)
4	ANODE D.P. (DIGIT 1)
5	ANODE E (DIGIT 2)
6	ANODE D (DIGIT 2)
7	ANODE G (DIGIT 2)
8	ANODE C (DIGIT 2)
9	ANODE D.P. (DIGIT 2)
10	ANODE B (DIGIT 2)
11	ANODE A (DIGIT 2)
12	ANODE F (DIGIT 2)
13	COMMON CATHODE (DIGIT 2)
14	COMMON CATHODE (DIGIT 1)
15	ANODE B (DIGIT 1)
16	ANODE A (DIGIT 1)
17	ANODE G (DIGIT 1)
18	ANODE 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 (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current Per Segment Derating Linear From 25℃ Per Segment	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.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	320	700		μcd	I_F=1mA
Peak Emission Wavelength	λp		650		nm	I_F=20mA
Spectral Line Half-Width	Δλ		20		nm	I_F=20mA
Dominant Wavelength	λd		639		nm	I_F=20mA
Forward Voltage Per Segment	V_F		2.1	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=1mA

NOTES:

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 ≦ 2.5%
3. Reverse voltage is only for IR test. It cannot continue to operate at this situation.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

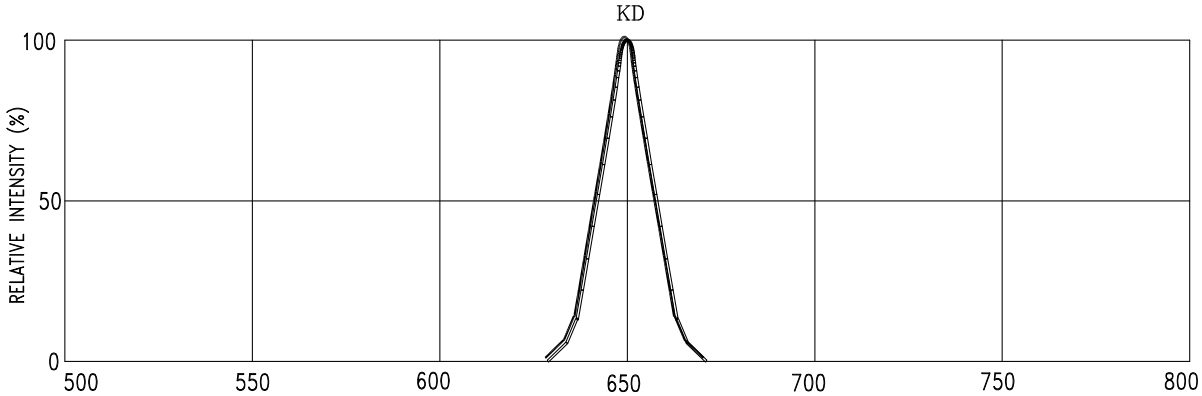


Fig1.Spectral Emission

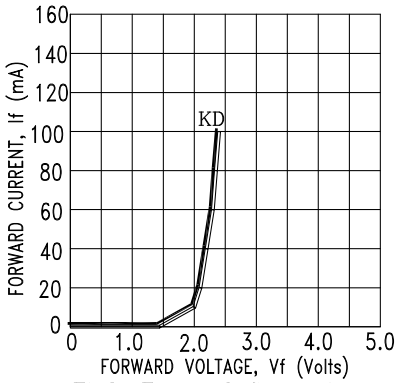


Fig2. Forward Current vs. Forward Voltage

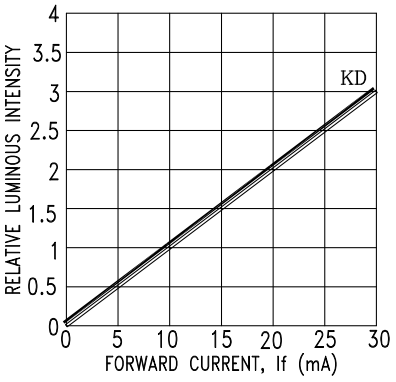


Fig3. Relative Luminous Intensity vs. DC Forward Current

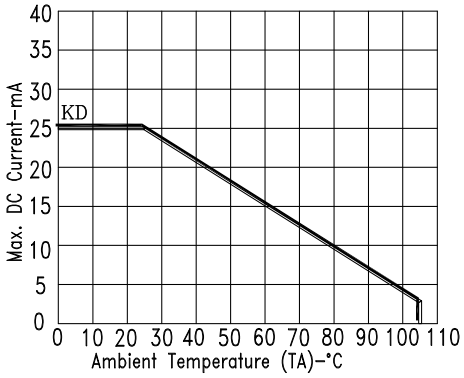


Fig4. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

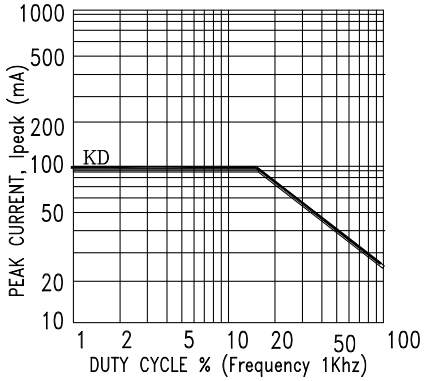
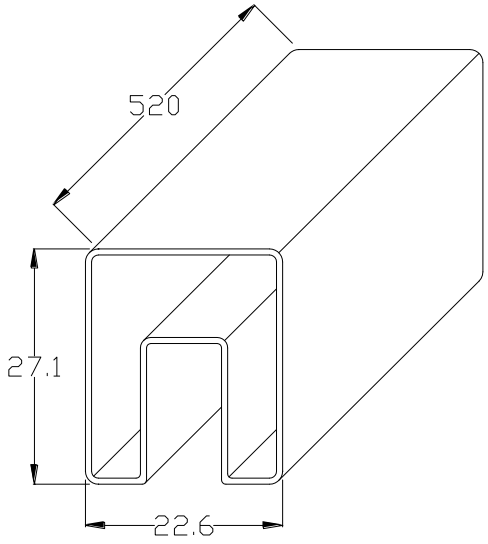


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE : KD=AlInGaP HYPER RED

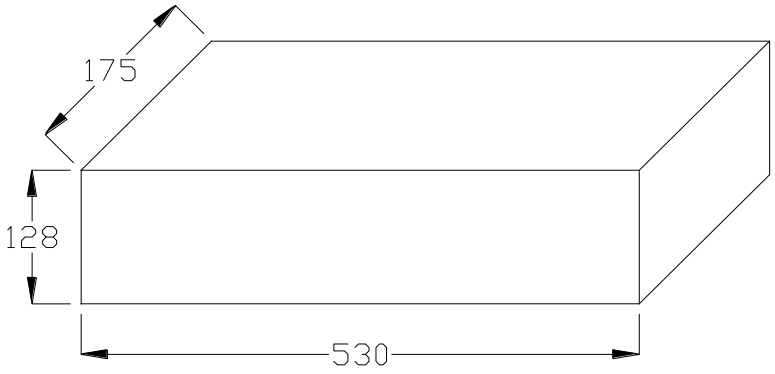
PACKING SPEC

Units/Tube: 20



Tubes/Inner Carton: 30

Units/Inner Carton: 600



Tubes/Outer Carton: 120

Units/Outer Carton: 2400