



LED Display Product Data Sheet LTC-5677KD-J

Spec No.: DS30-2011-0110

Effective Date: 06/02/2012

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY**LTC-5677KD-J
DATASHEET**

Rev	Description	By
01	ORIGINAL (Refer to contour drawing Revision (-))	<u>KITTISAK S.</u> <u>Mar 23'11</u>
02	Add packing spec	<u>KITTISAK S.</u> <u>Mar 29'11</u>
03	Add "LEAD-FREE PACKAGE (ACCORDING TO ROHS)"	<u>KITTISAK S.</u> <u>April 8'11</u>
04	Add Pin No. 6 and noted "NO CONNECTION" on page 3	<u>KITTISAK S.</u> <u>June 23'11</u>
	(Above data for PD and Customer tracking only)	
-	NPPR Received and Upload on OPNC	<u>Kritsana T.</u> <u>Aug 07/2011</u>

SPEC. NO.: DS30-2011-0110

DATE : Aug 07/12

REV. NO. : -

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FEATURES

- * 0.52 INCH (13.2 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)

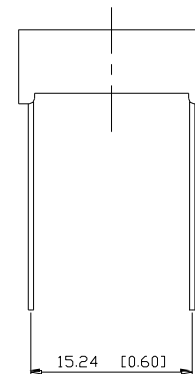
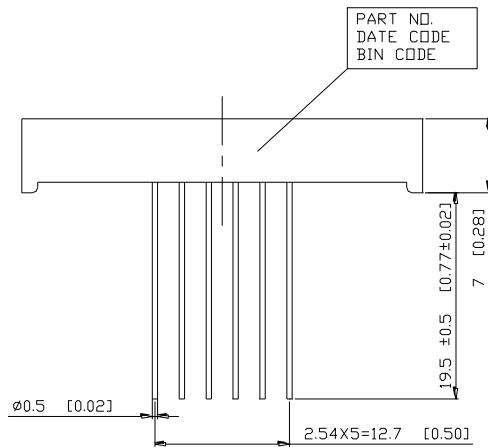
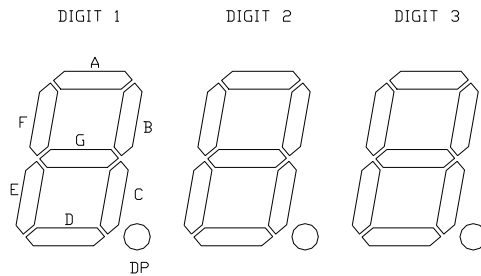
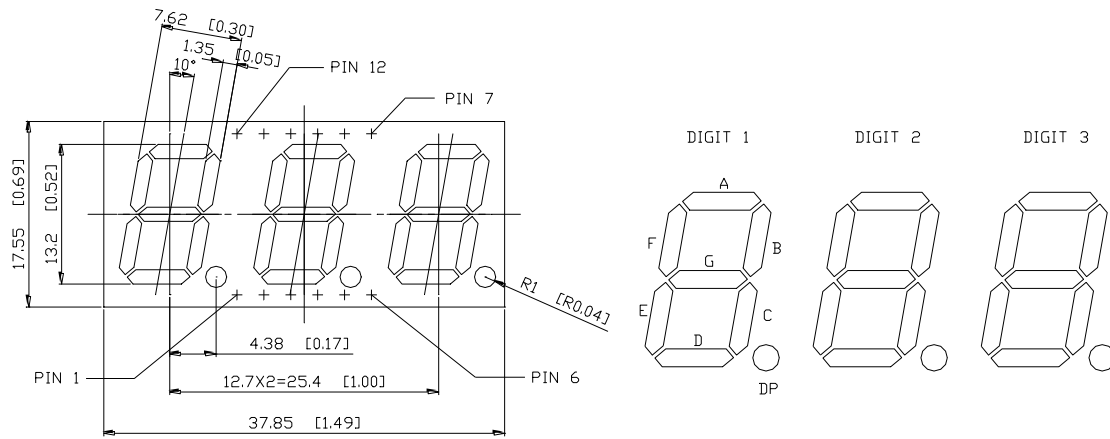
DESCRIPTION

The LTC-5677KD-J is a 0.52 inch (13.2 mm) height triple digit seven-segment display. This device uses AS-AlInGaP Hyper Red LED chips (AlInGaP epi on GaAs substrate) and has a gray face and white segments.

DEVICE

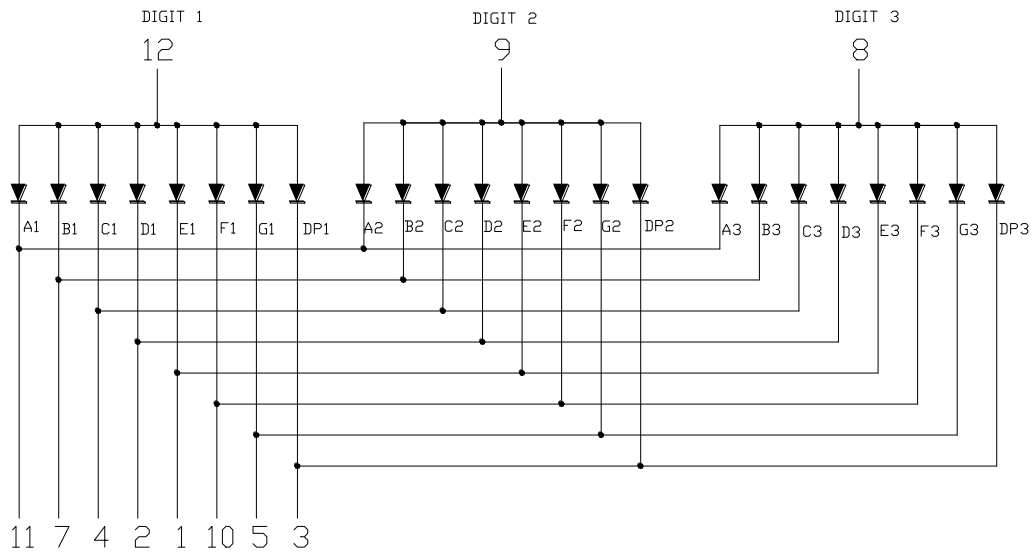
PART NO.	DESCRIPTION
AlInGaP Hyper Red LTC-5677KD-J	Common Anode Rt. Hand Decimal

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. Foreign material on segment ≤ 10 mils
 4. Ink contamination (surface) ≤ 20 mils
 5. Bending $\leq 1\%$ of reflector length
 6. Bubble in segment ≤ 10 mils

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

NO.	CONNECTION
1	CATHODE E
2	CATHODE D
3	CATHODE DP
4	CATHODE C
5	CATHODE G
6	NO CONNECTION
7	CATHODE B
8	COMMON ANODE (DIGIT 3)
9	COMMON ANODE (DIGIT 2)
10	CATHODE F
11	CATHODE A
12	COMMON ANODE (DIGIT 1)

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle)	100*	mA
Continuous Forward Current Per Segment	25	mA
Forward Current Derating from 25 ⁰ C	0.28	mA/ ⁰ C
Operating Temperature Range	-35 ⁰ C to +105 ⁰ C	
Storage Temperature Range	-35 ⁰ C to +105 ⁰ C	
Solder Temperature: max 260 ⁰ C for max 3sec at 1.6mm[1/16inch] below seating plane. Or temperature of unit (during assembly) not above max. temperature above rating.		

* see figure 5 to establish pulsed condition

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25⁰C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	5400	10000		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		650		nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d		640		nm	I _F =20mA
Forward Voltage. Per Segment	V _F		2.0	2.6	V	I _F =20mA
Reverse Current, Per Segment	I _R			100	μA	V _R =5V ^[2]
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =10mA

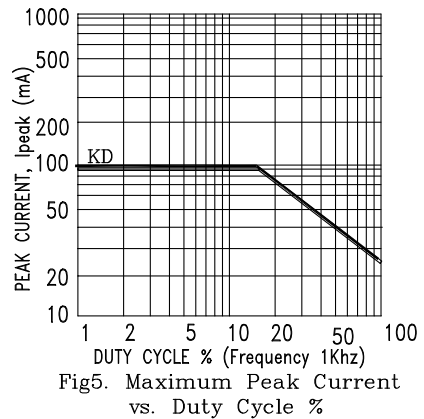
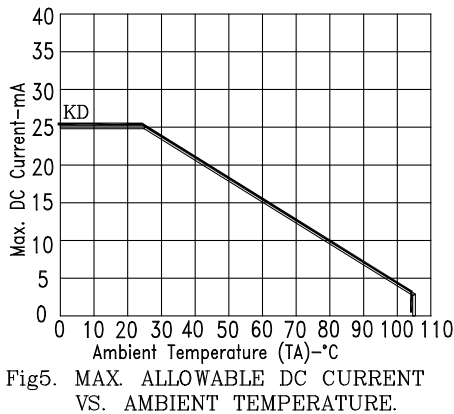
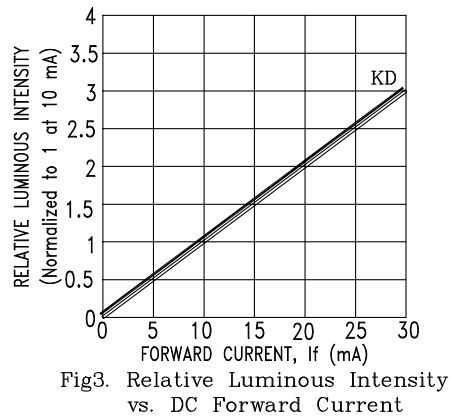
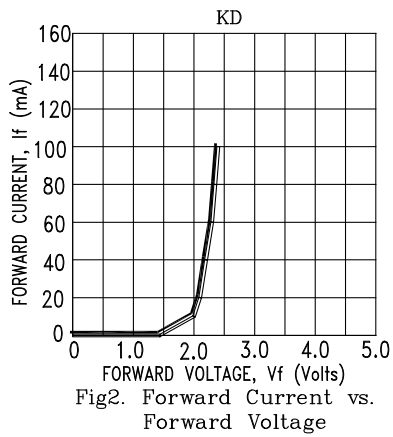
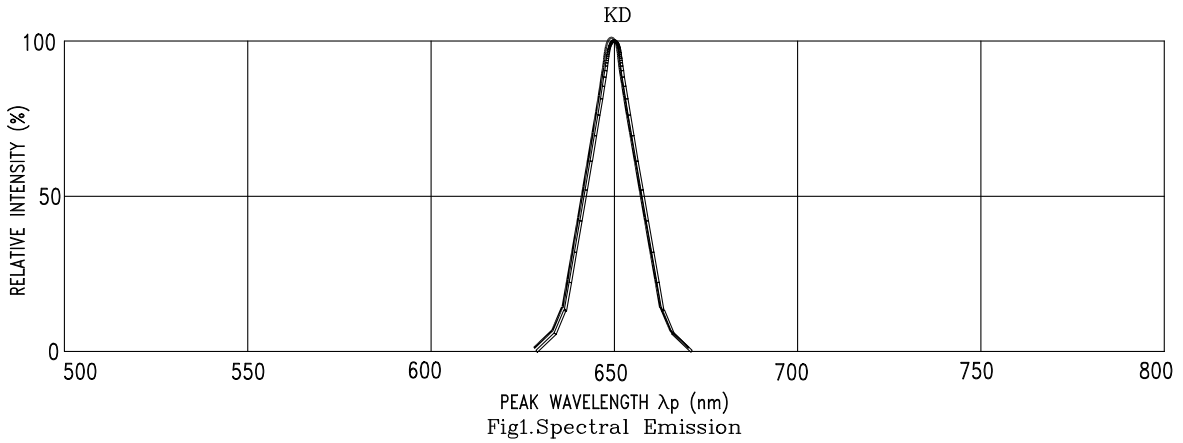
Note: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission Internationale De L'Eclairage) eye-response curve.

2. Reverse voltage is only for IR test. It can not continue to operate at this situation.

3. Cross talk specification ≅ 2.5%

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

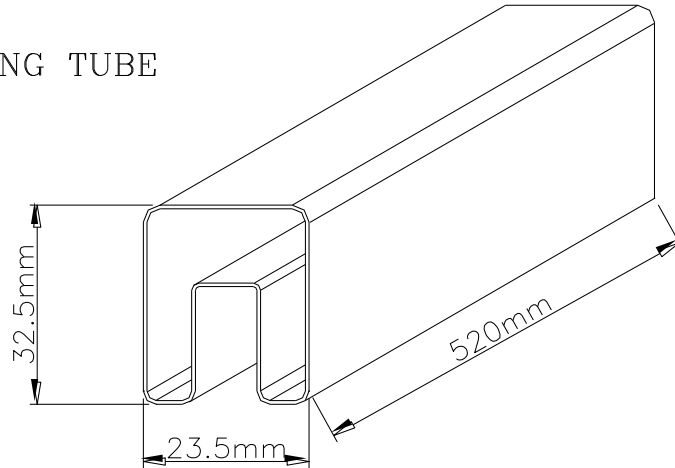
(25°C Ambient Temperature Unless Otherwise Noted)



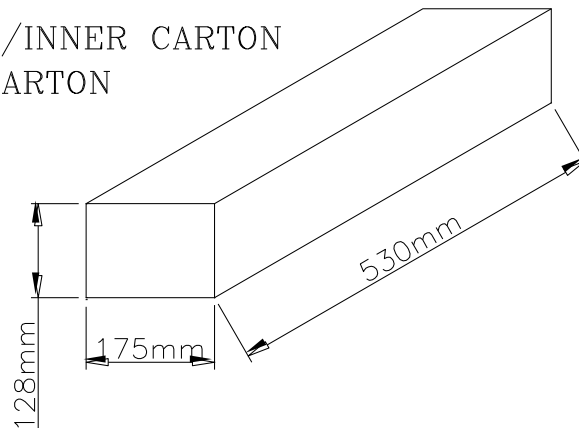
NOTE : KD=AlInGaP HYPER RED

THE PACKING SPEC.
FOR LTC-5677KD-J

13 PCS/PACKING TUBE



21 PACKING TUBE/INNER CARTON
273 PCS/INNER CARTON



4 INNER CARTON/OUTER CARTON
1092 PCS/OUTER CARTON

