



# LED Display Product Data Sheet LTD-3506KR

Spec No.: DS30-2012-0065

Effective Date: 07/03/2012

Revision: A

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4



# LITE-ON TECHNOLOGY CORPORATION

Property of Lite-On Only

**LED DISPLAY**

## LTD-3506KR

## DATA SHEET

ITEM	DESCRIPTION	ISSUER	DATE
1	New Spec.	Reo Lin	06/06/2012
2	Revised Error for Package Dimensions	Reo Lin	06/27/2012

**FEATURES**

- \* 0.3 inch (7.62 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)**

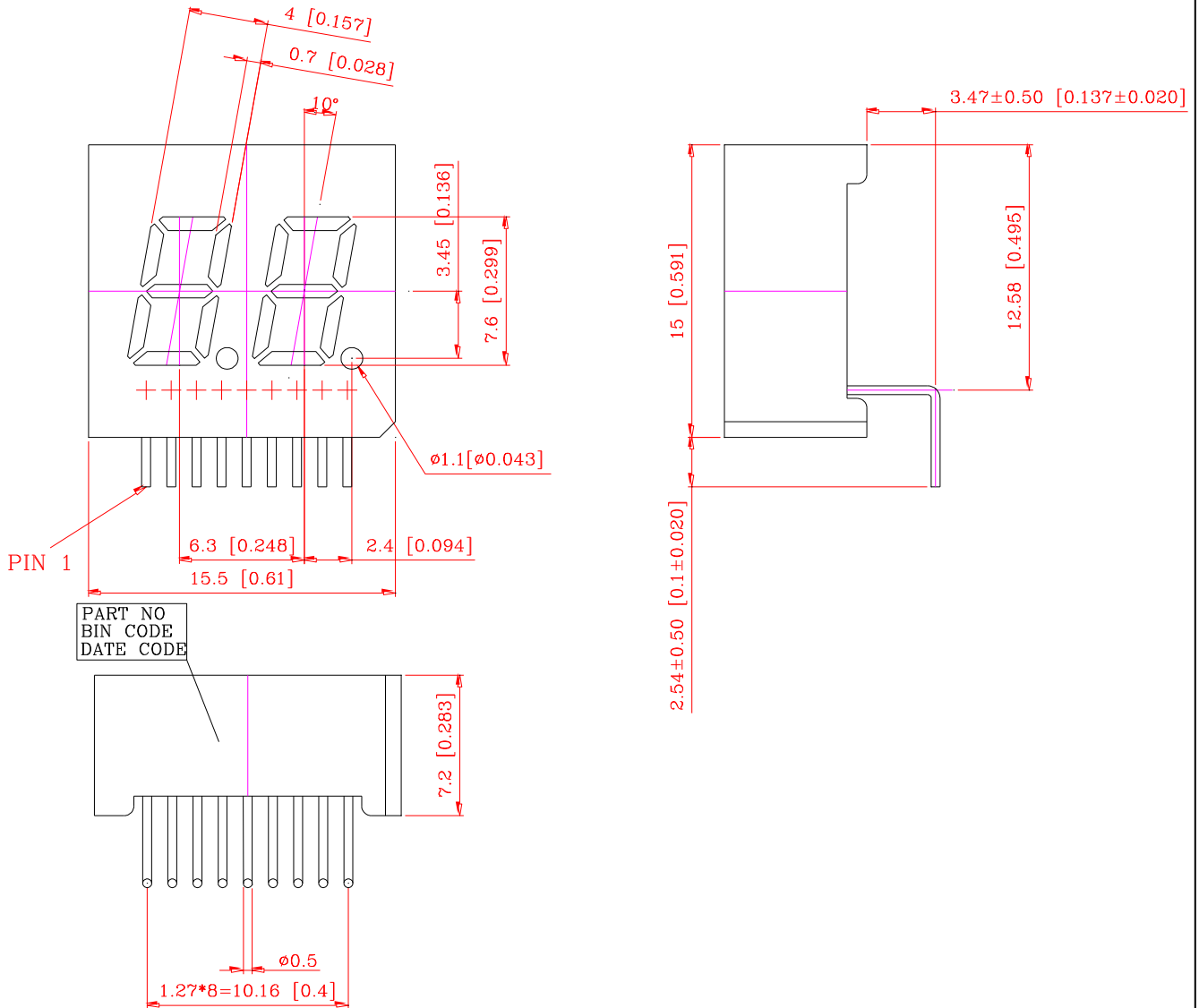
**DESCRIPTION**

The LTD-3506KR is a 0.3 inch (7.6 mm) digit height dual digit seven-segment display. This device uses AS-AlInGaP SUPER RED LED chips (AlInGaP epi on GaAs substrate), and has a gray face and white segments.

**DEVICE**

<b>PART NO.</b>	<b>DESCRIPTION</b>
AlInGap RED	Duplex Common Cathode
LTD-3506KR	

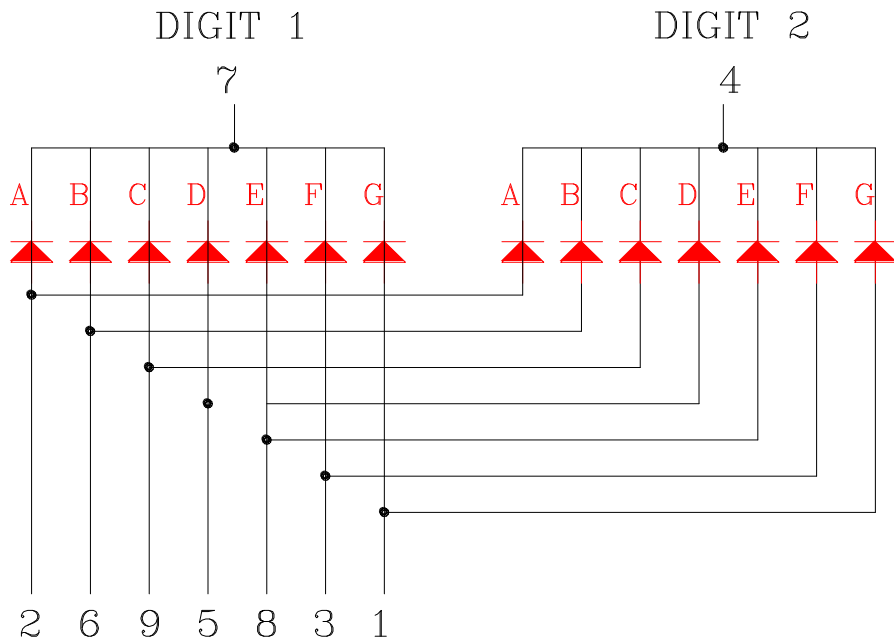
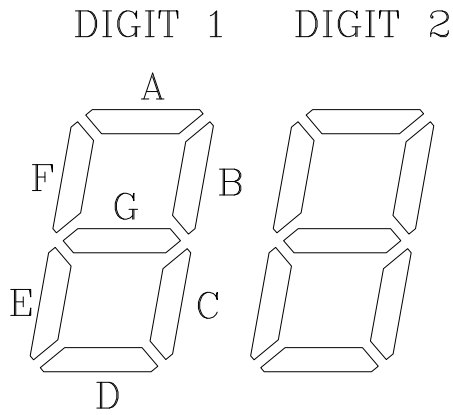
**PACKAGE DIMENSIONS**



**NOTES:**

1. All dimensions are in millimeters. Tolerances are  $\pm 0.25$  mm (0.01") unless otherwise noted.
2. Pin tip's shift tolerance is  $\pm 0.4$  mm
3. Foreign material on segment  $\leq 10$  mils
4. Ink contamination (surface)  $\leq 20$  mils
5. Bending  $\leq 1\%$  of reflector length
6. Bubble in segment  $\leq 10$  mils
7. Recommend the best pcb hole : diameter 1mm

**INTERNAL CIRCUIT DIAGRAM**



**PIN CONNECTION**

NO.	CONNECTION
1	ANODE G1,G2
2	ANODE A1,A2
3	ANODE F1,E2
4	COMMON CATHODE (DIGIT 2)
5	ANODE D1,D2
6	ANODE B1,C2
7	COMMON CATHODE (DIGIT 1)
8	ANODE E1,B2
9	ANODE C1,F2

### ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment ( Frequency 1Khz, 10% duty cycle)	90	mA
Continuous Forward Current Per Segment Derating Linear From 25°C Per Segment	25 0.33	mA mA/°C
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	

Wave Solder Temperature: max 260°C for max 5sec at 1.6mm below seating plane.

Manual solder Temperature : Max 295°C +/-5°C for max 3sec at 1.6mm below seating plane.

### ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

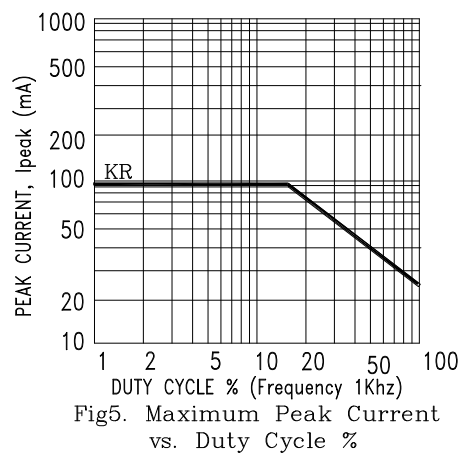
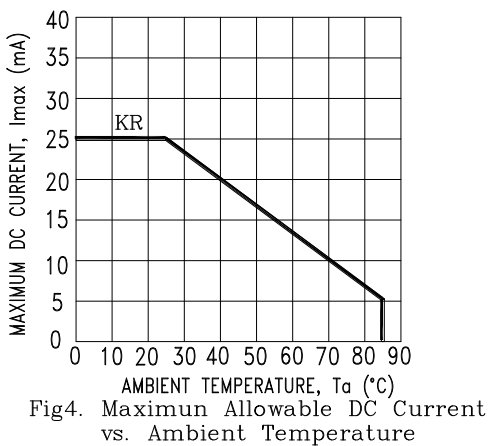
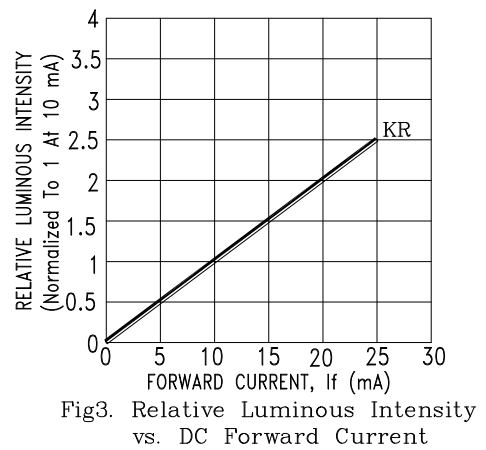
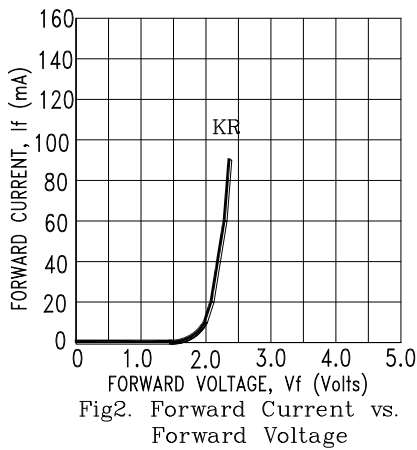
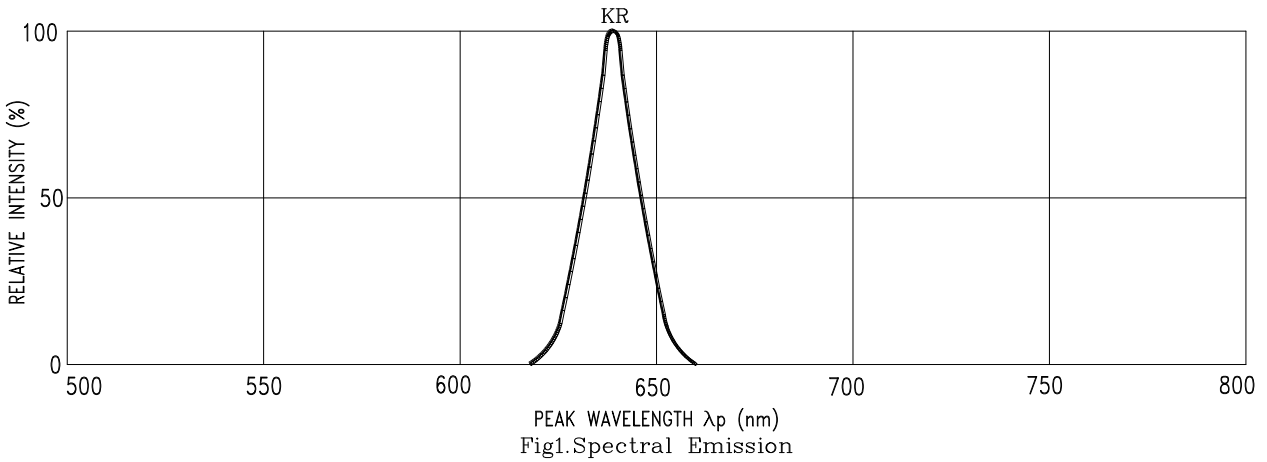
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	350	860		μcd	IF=1mA
			11150			IF=10mA
Peak Emission Wavelength	λp		639		nm	IF=20mA
Spectral Line Half-Width	Δλ		240		nm	IF=20mA
Dominant Wavelength	λd		631		nm	IF=20mA
Forward Voltage Per Segment	VF		2.0	2.6	V	IF=20mA
Reverse Current Per Segment <sup>(2)</sup>	IR			100	μA	VR=5V
Luminous Intensity Matching Ratio (Same Light Area)	Iv-m			2:1		IF=1mA

Note:

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. Reverse voltage is only for IR test. It can not continue to operate at this situation
3. Cross talk specification  $\leq 2.5\%$

**TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES**

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KR=AlInGaP SUPER RED