



LED Display Product Data Sheet LTC-37C5KR

Spec No.: DS30-2012-0127

Effective Date: 12/29/2012

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY**LTC-37C5KR****DATA SHEET**

ITEM	DESCRIPTION	ISSUER	DATE
1	New Spec.	Reo Lin	10/04/2012
2	Modify internal circuit diagram and pin connection in Page 4 and 5	Reo Lin	10/23/2012
3	Modify Pin length from 8.1 to 9.9 mm	Reo Lin	12/18/2012

FEATURES

- * 0.36 inch (9.2 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)**

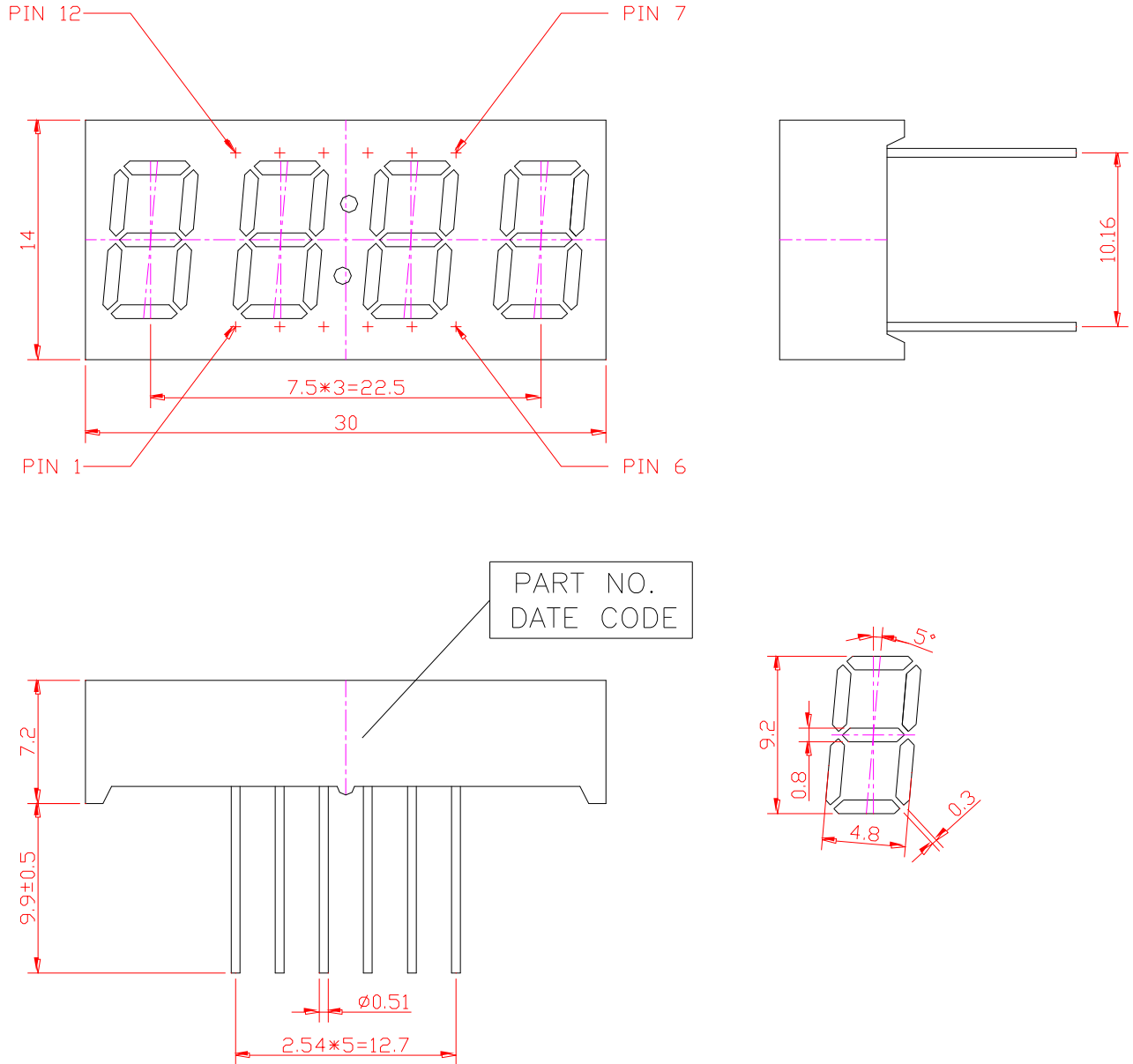
DESCRIPTION

The LTC-37C5KR is a 0.36inch (9.2 mm) height digit display. This device utilizes AlInGaP Super Red LED chips, which is made from AlInGaP on a non-transparent GaAs substrate, and has a black face and white segments.

DEVICE

PART NO.	DESCRIPTION
AlInGaP Super Red	COMMON CATHODE
LTC-37C5KR	

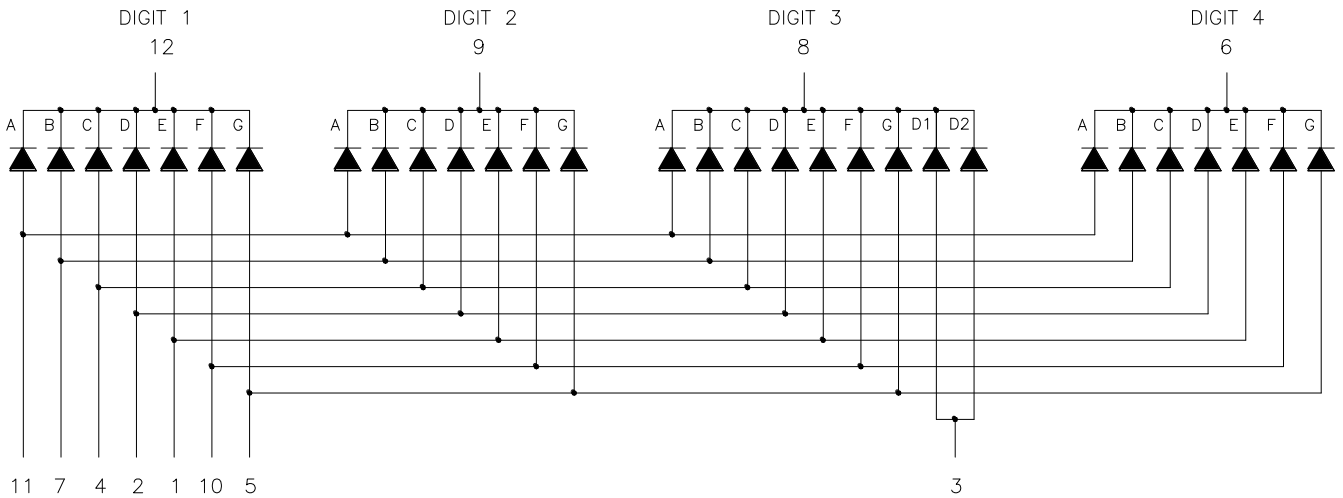
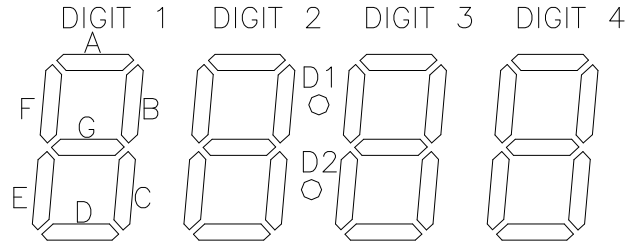
PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters. Tolerances are $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
2. Pin tip's shift tolerance is $\pm 0.4\text{mm}$.
3. Foreign material on segment $\leq 10\text{mils}$
4. Ink contamination (surface) $\leq 20\text{mils}$
5. Bending $\leq 1\%$ of reflector length
6. Bubble in segment $\leq 10\text{mils}$
7. Recommend the best pcb hole : diameter 1.0mm

INTERNAL CIRCUIT DIAGRAM



Property of Lite-On Only

PIN CONNECTION

No.	CONNECTION
1	Anode E
2	Anode D
3	Anode D1,D2
4	Anode C
5	Anode G
6	Common Cathode Digit 4
7	Anode B
8	Common Cathode Digit 3,D1,D2
9	Common Cathode Digit 2
10	Anode F
11	Anode A
12	Common Cathode Digit 1

Property of Lite-On Only

ABSOLUTE MAXIMUM RATING AT T_A=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Chip	70	mW
Peak Forward Current Per Chip (1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA
Continuous Forward Current Per Chip	25	mA
Derating Linear From 25 °C Per Chip	0.33	mA/°C
Operating Temperature Range	-35 °C to +85 °C	
Storage Temperature Range	-35 °C to +85 °C	
Solder Temperature: max 260°C for max 3sec at 1.6mm below seating plane		

TYPICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

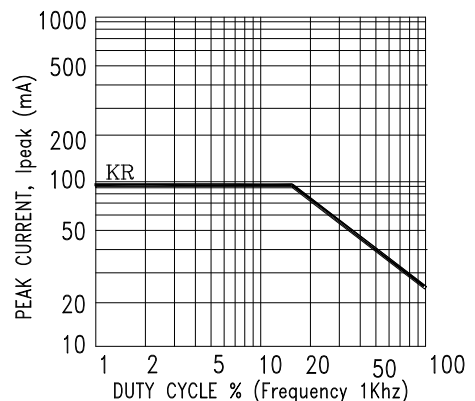
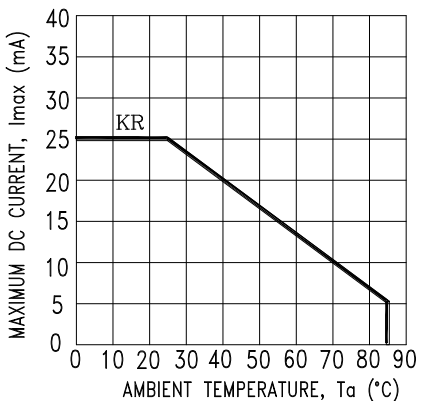
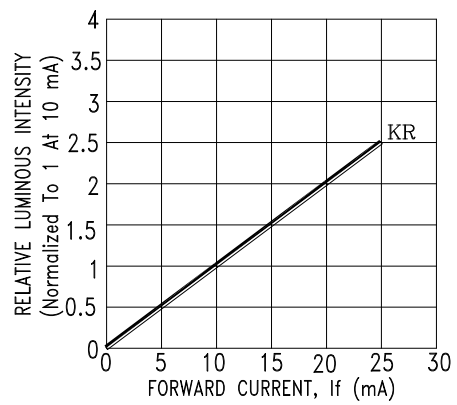
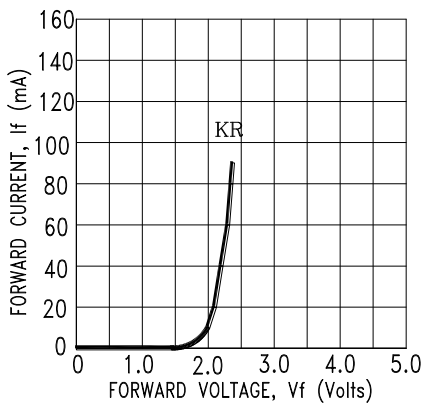
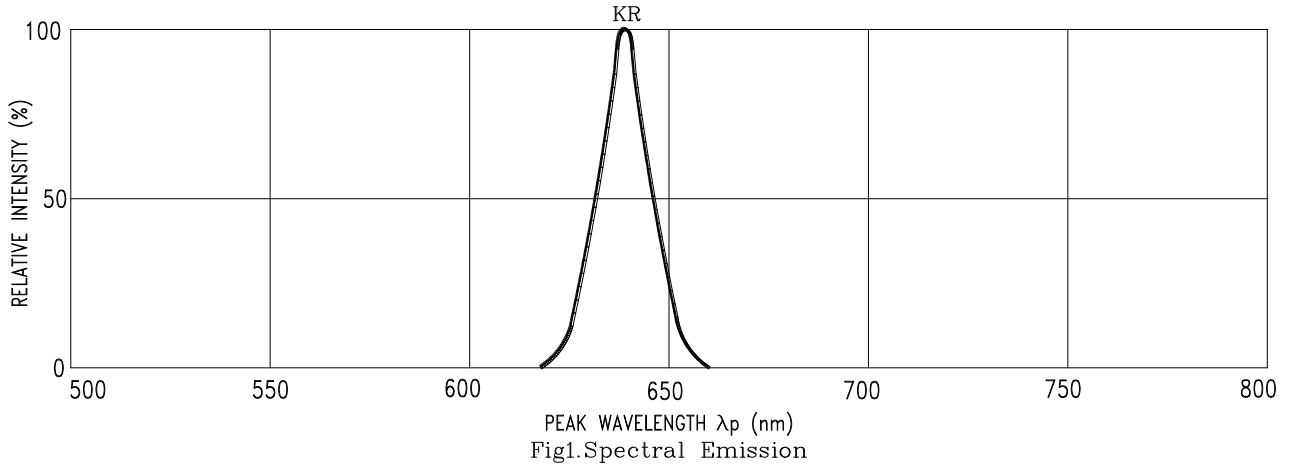
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	320	975		μcd	I _F =1mA
			12675		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		639		nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d		631		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.05	2.6	V	I _F =20mA
Reverse Current Per Segment ⁽²⁾	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =1mA

Note:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.
- Reverse voltage is only for IR test. It can not continue to operate at this situation.
- Cross talk specification $\leq 2.5\%$

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KR=AlInGaP SUPER RED