



LED Display

Product Data Sheet

LTC-3710KR

Spec No.: DS30-2008-0138

Effective Date: 05/05/2010

Revision: A

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>

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)**

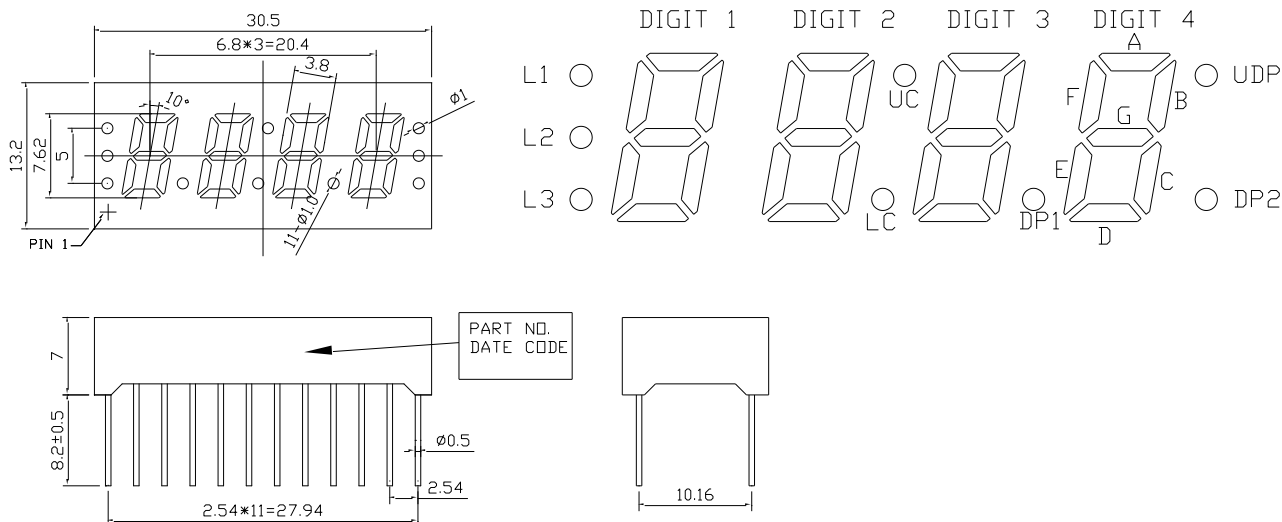
DESCRIPTION

The LTC-3710KR is a 0.3 inch (7.62 mm) digit height quadruple digit seven-segment display. This device uses AlInGaP Super Red LED chips (AlInGaP on a non-transparent GaAs). The display has a black face and red segments.

DEVICE

PART NO.	DESCRIPTION
AlInGaP Super Red	Multiplex Common Cathode Rt. Hand Decimal
LTC-3710KR	

PACKAGE DIMENSIONS

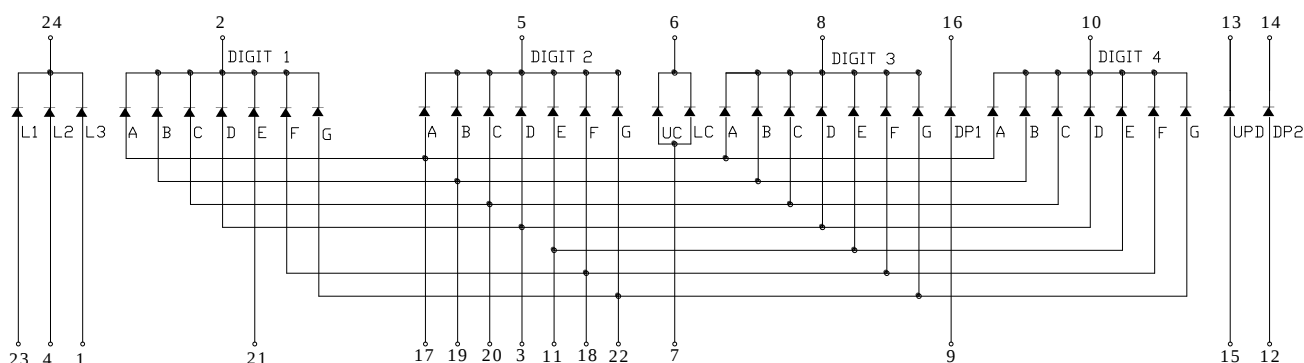


notes:

- 1 all dimensions are in millimeters.
 - 2 tolerance is ± 0.25 mm unless otherwise specified.
 - 3 bending is less than 1/100 length.
- Pin tip's shift tolerance is ± 0.4 mm

NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01") unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

NO	CONNECTION	NO	CONNECTION
1	ANODE L3	13	CATHODE UDP
2	COMMON CATHODE DIGIT 1	14	CATHODE DP2
3	ANODE 1D,2D,3D,4D	15	ANODE UDP
4	ANODE L2	16	CATHODE DP1
5	COMMON CATHODE DIGIT 2	17	ANODE 1A,2A,3A,4A
6	CATHODE UC,LC	18	ANODE 1F,2F,3F,4F
7	ANODE UC,LC	19	ANODE 1B,2B,3B,4B
8	COMMON CATHODE DIGIT 3	20	ANODE 1C,2C,3C,4C
9	ANODE DP1	21	ANODE 1E
10	COMMON CATHODE DIGIT 4	22	ANODE 1G,2G,3G,4G
11	ANODE 2E,3E,4E	23	ANODE L1
12	ANODE DP2	24	CATHODE L1,L2,L3

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle)	90	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25°C Per Segment	0.28	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 5 seconds at 260 ⁰ C		

Bin range distribution

Bin	F	G	H	J	K
Min.	321	501	801	1301	2101
Max.	500	800	1300	2100	3400

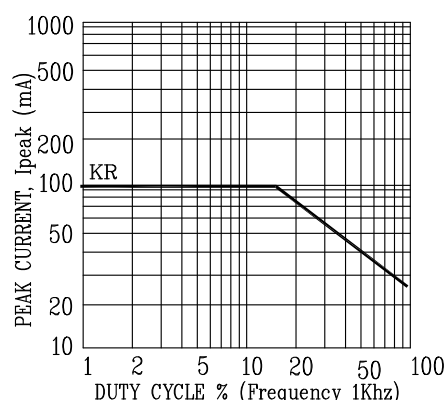
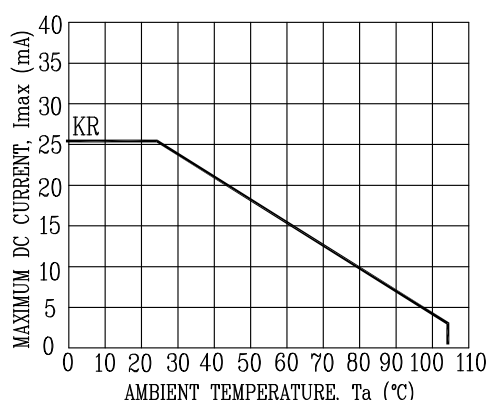
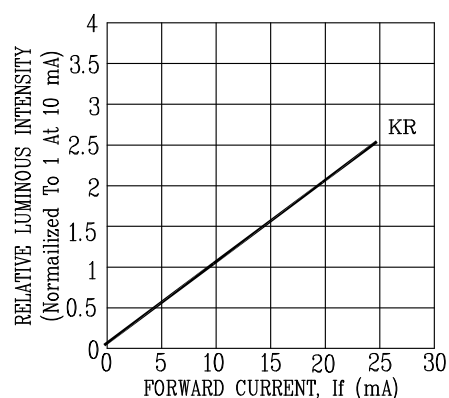
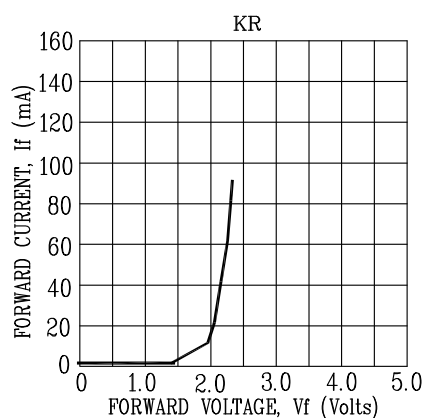
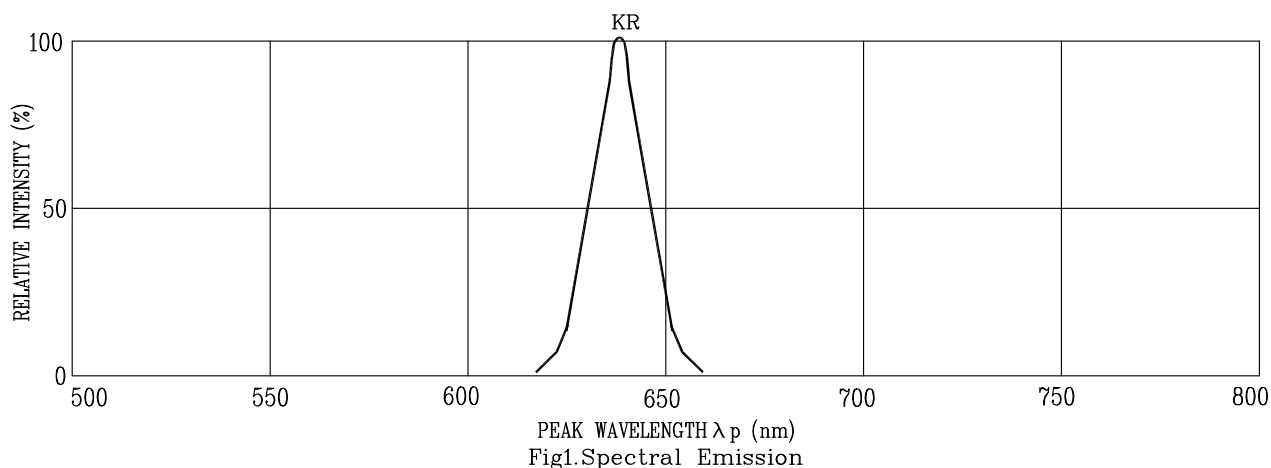
ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	320	900		μcd	I _F =1mA
			11700			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		2.0	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio (Same Light Area)	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.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KR=AlInGaP SUPER RED