LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTF-2502KR

Spec No.: DS30-2011-0210

Effective Date: 12/16/2011

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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LED DISPLAY

LTF-2502KR
DATA SHEET

ITEM	DESCRIPTION	ISSUER	DATE
1	New Spec.	Eason Lin	2011/09/28

FEATURES

∗0.26 inch (6.8 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).**

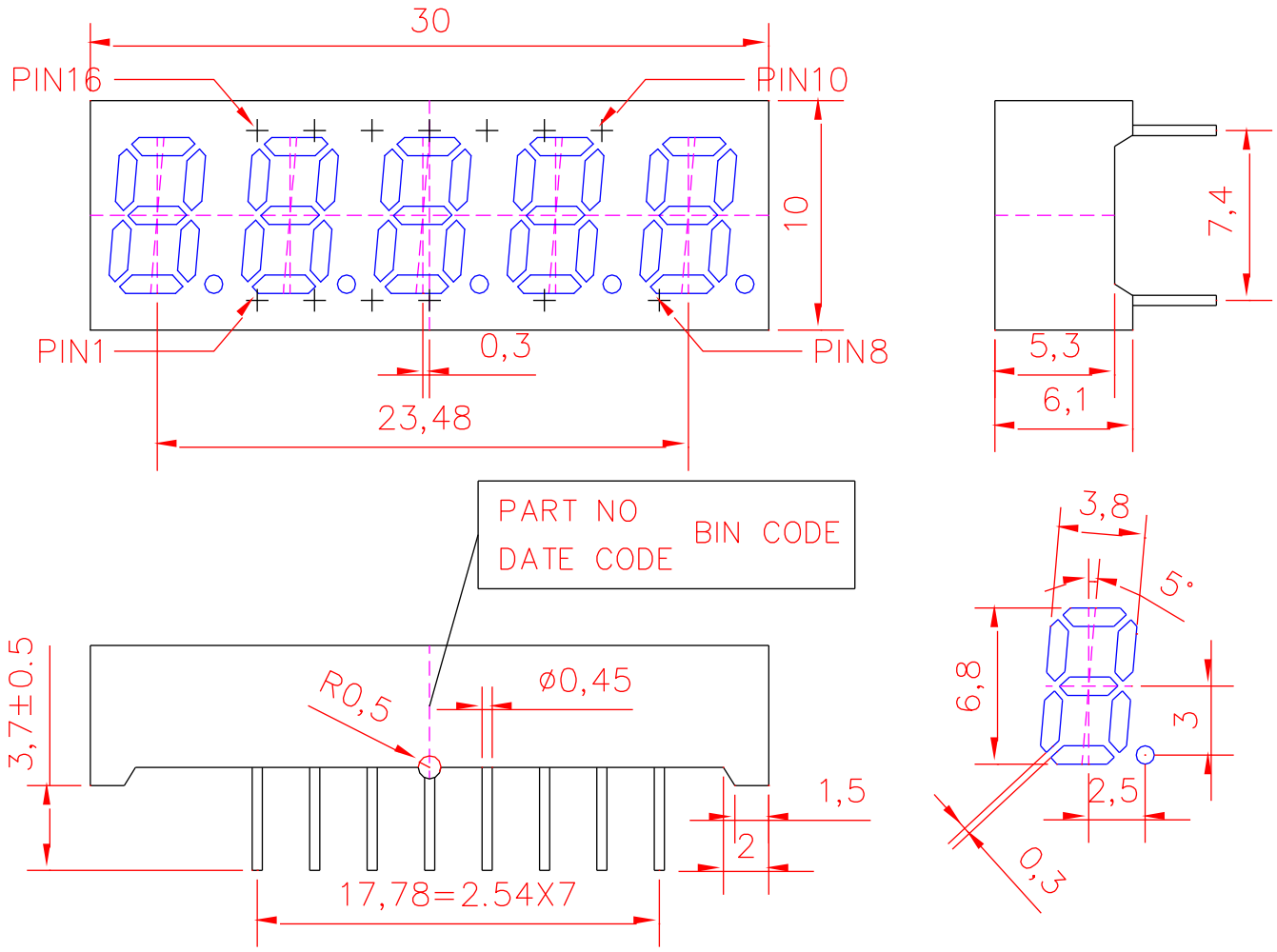
DESCRIPTION

The LTF-2502KR is a 0.26inch (6.8mm) digit height five digit seven-segment display. This device uses AS-AlInGaP Super RED LED chips (AlInGaP epi on GaAs substrate). The display has a black face and white segments.

DEVICE

PART NO.	DESCRIPTION
AlInGaP Supper Red	Multiplex Common Anode
LTF-2502KR	Rt. Hand Decimal

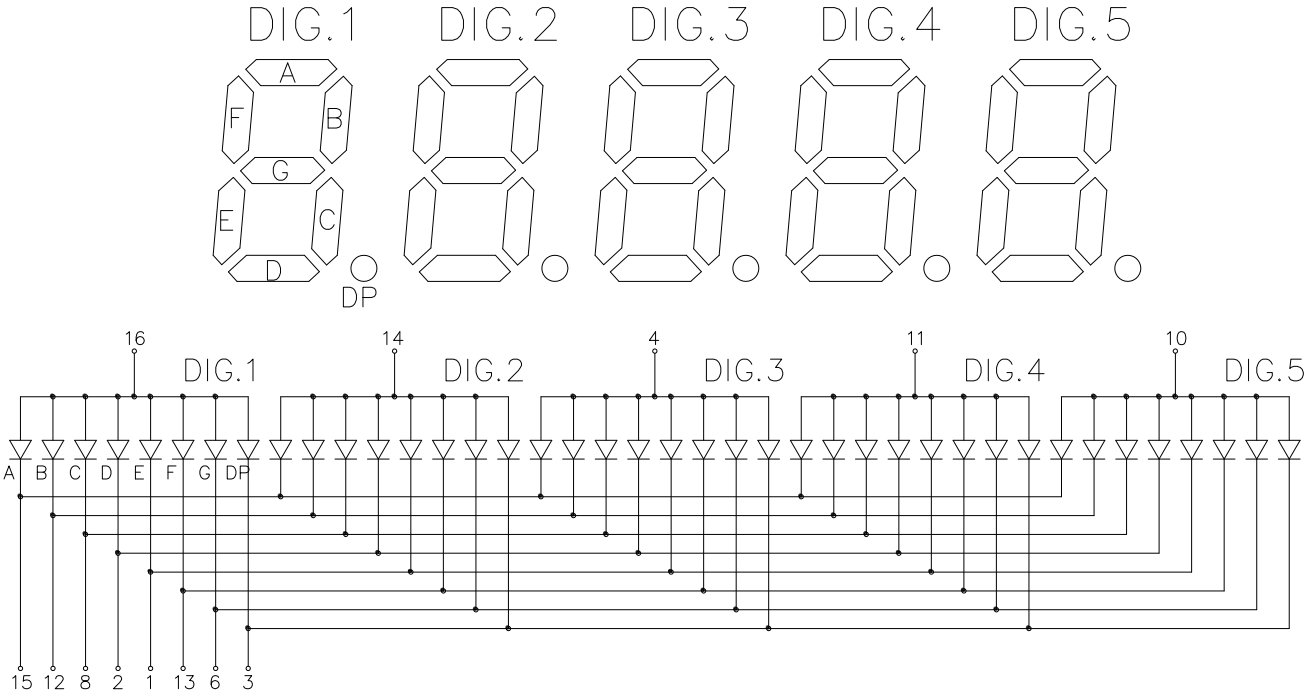
PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters. Tolerance are ± 0.25 mm (0.01“) unless otherwise noted.
2. Pin tip’s shift tolerance is +/- 0.4 mm.
3. Device bending less than 1/100 total length.

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

NO	CONNECTION	NO	CONNECTION
1	CATHODE E	9	NO PIN
2	CATHODE D	10	COMMON ANODE DIG.5
3	CATHODE DP	11	COMMON ANODE DIG.4
4	COMMON ANODE DIG.3	12	CATHODE B
5	NO PIN	13	CATHODE F
6	CATHODE G	14	COMMON ANODE DIG.2
7	NO PIN	15	CATHODE A
8	CATHODE C	16	COMMON ANODE DIG.1

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
Forward Current Derating from 25℃	0.33	mA/℃
Operating Temperature Range	-35℃ to +85℃	
Storage Temperature Range	-35℃ to +105℃	
Soldering Conditions : 1/16 inch below seating plane for 5 seconds at 260℃		

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	λp		639		nm	I_F=20mA
Spectral Line Half-Width	Δλ		20		nm	I_F=20mA
Dominant Wavelength	λd		631		nm	I_F=20mA
Forward Voltage Per Segment	V_F		2.0	2.6	V	I_F=20mA
Reverse Current Per Segment(2)	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ratio (Same Light Area)	I_V-m			2 : 1		I_F=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.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

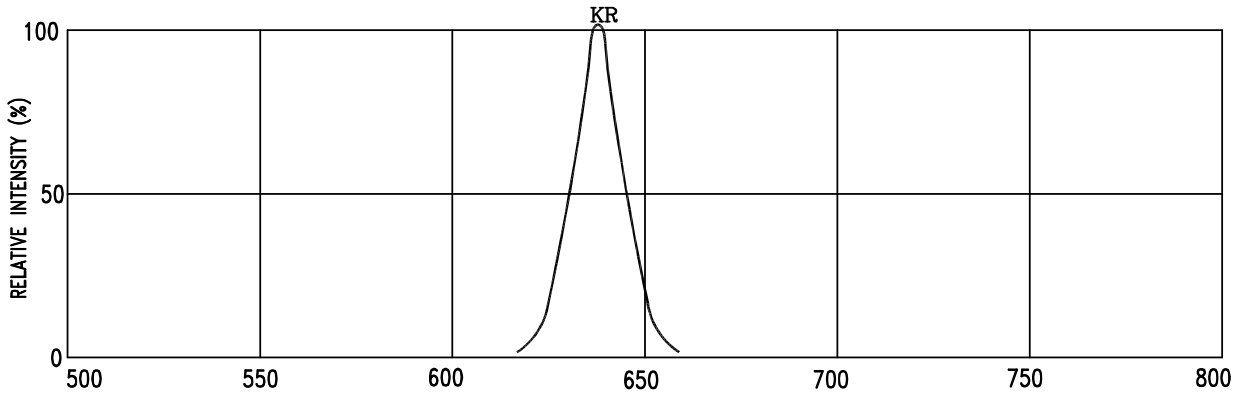


Fig1.Spectral Emission

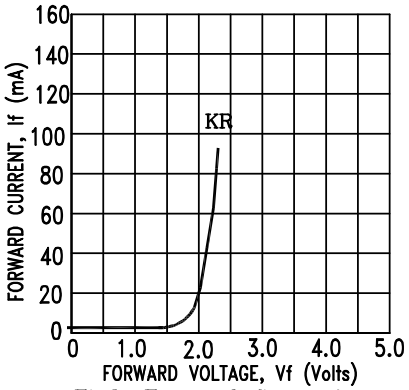


Fig2. Forward Current vs. Forward Voltage

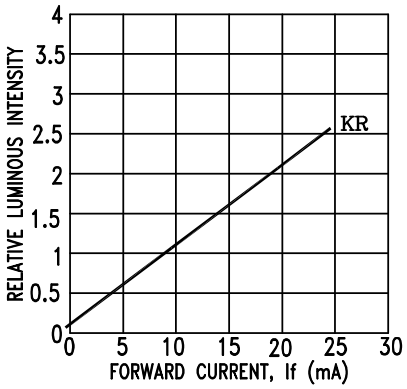


Fig3. Relative Luminous Intensity vs. DC Forward Current

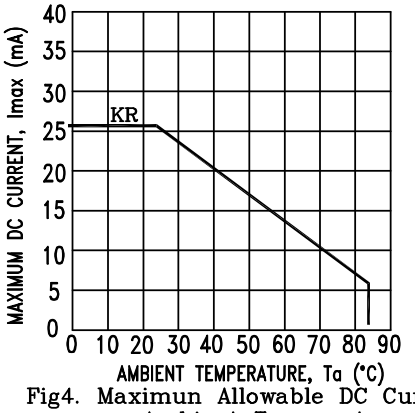


Fig4. Maximun Allowable DC Current vs. Ambient Temperature

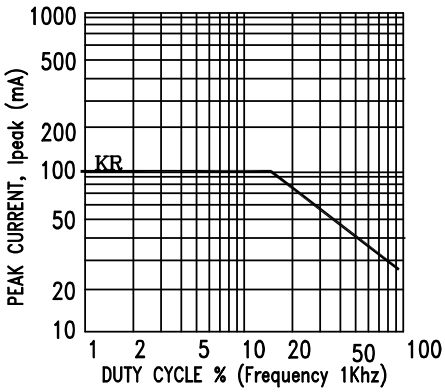


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE : KR=AlInGaP SUPER RED