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)**

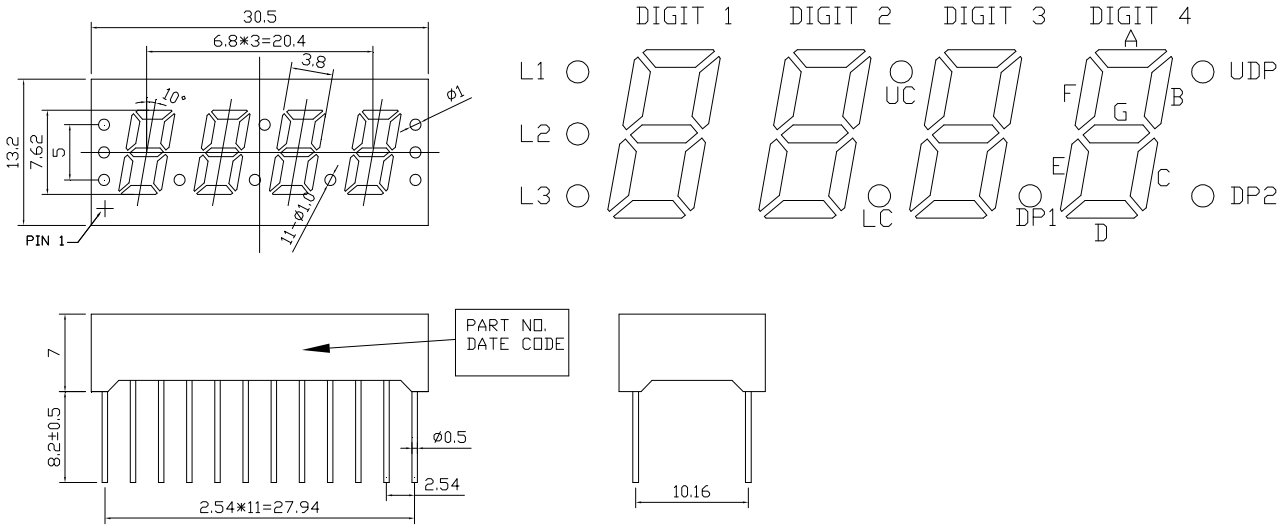
DESCRIPTION

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

DEVICE

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

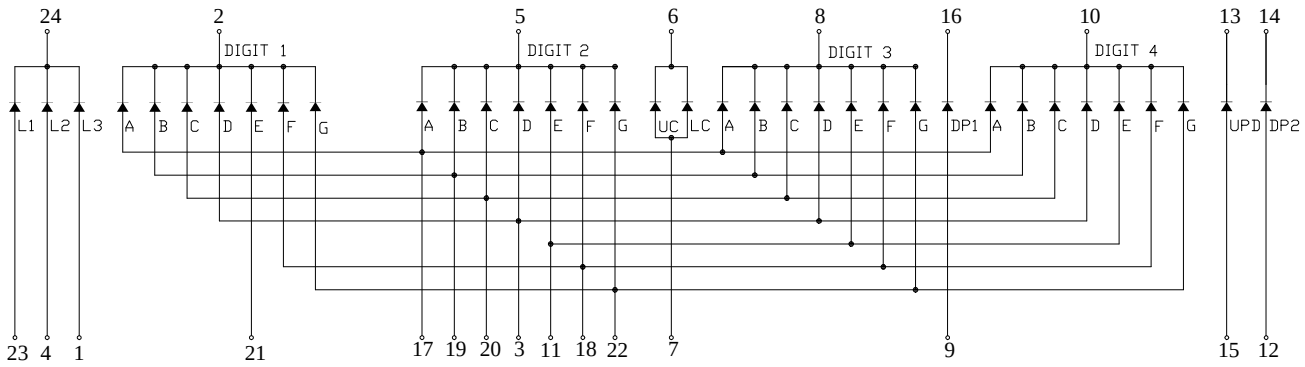
PACKAGE DIMENSIONS



notes:
1 all dimensions are in millimeters.
2 tolerance is ±0.25mm 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 Derating Linear From 25℃ Per Segment	25 0.28	mA mA/℃
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35℃ to +105℃	
Storage Temperature Range	-35℃ to +105℃	
Soldering Conditions : 1/16 inch below seating plane for 5 seconds at 260^0C		

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	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)

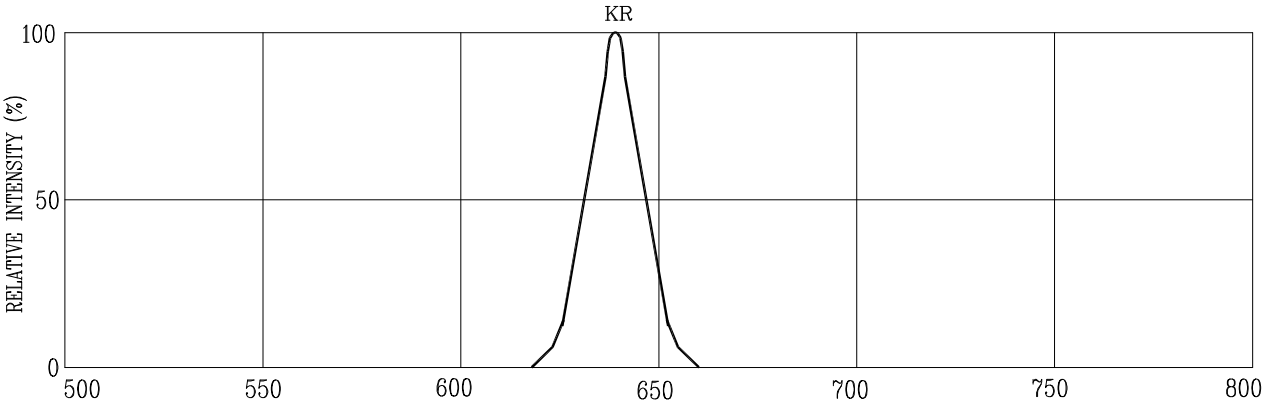


Fig1.Spectral Emission

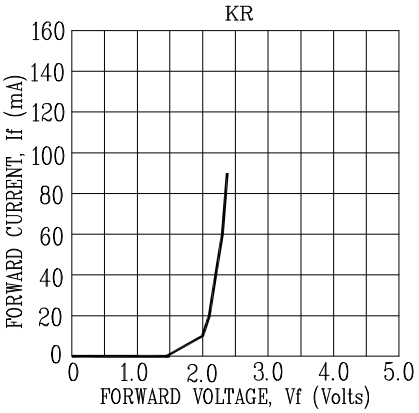


Fig2. Forward Current vs. Forward Voltage

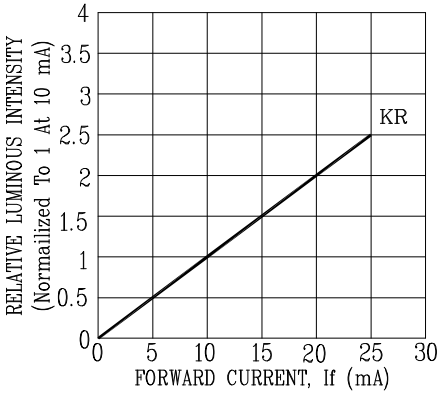


Fig3. Relative Luminous Intensity vs. DC Forward Current

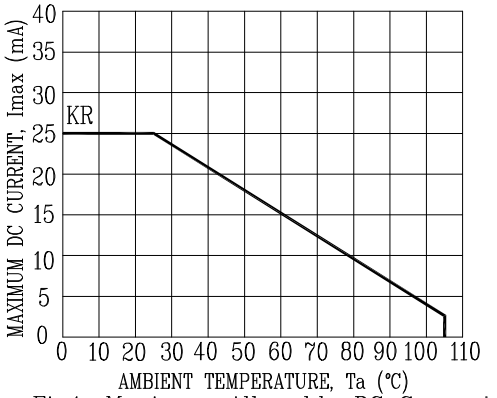


Fig4. Maximun Allowable DC Current vs. Ambient Temperature

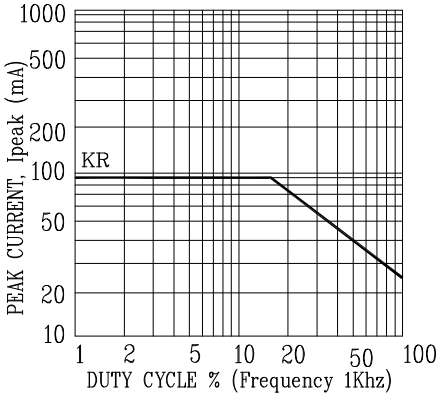


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE : KR=AlInGaP SUPER RED