



# **LED Display**

## **Product Data Sheet**

### LTA-10102KR

Spec No.: DS30-2008-0086

Effective Date: 05/22/2008

Revision: -

**LITE-ON DCC**

**RELEASE**

# LED DISPLAY

## LTA-10102KR

## DATA SHEET

Rev	Description	By
01	RDR Original Spec	Phanomkorn J. 24 January 2008
-	NPPR Original Spec	Phanomkorn J. 23 April 2008

S P E C . N O . :      DS30-2008-0086

D A T E        :      23 April 2008

R E V . N O . :      -

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## FEATURES

- \* RECTANGULAR LIGHT BAR
- \* LARGE, BRIGHT, UNIFORM LIGHT EMITTING AREAS
- \* LOW POWER REQUIREMENT
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* SOLID STATE RELIABILITY
- \* CATEGORIZED FOR LUMINOUS INTENSITY
- \* **LEAD-FREE PACKAGE(ACCORDING TO ROHS)**

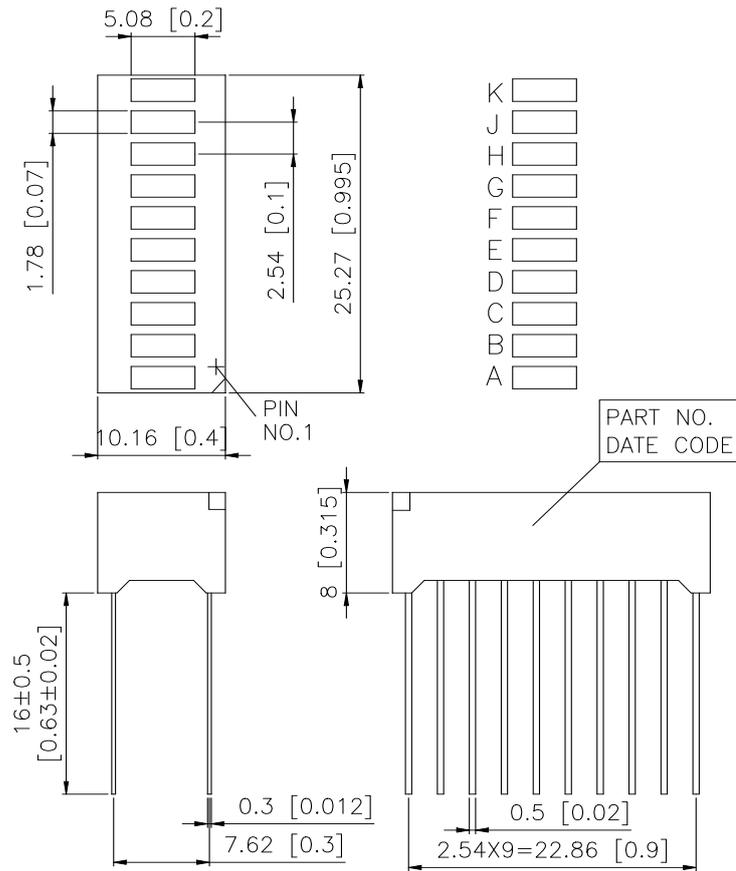
## DESCRIPTION

The LTA-10102KR is a ten rectangular light sources array display designed for a variety of applications where a continuously large, bright source of light is required. This device uses AlInGaP Super Red LED chips, which are made from AlInGaP on a non-transparent GaAs substrate. The display has a black face and white segments.

## DEVICE

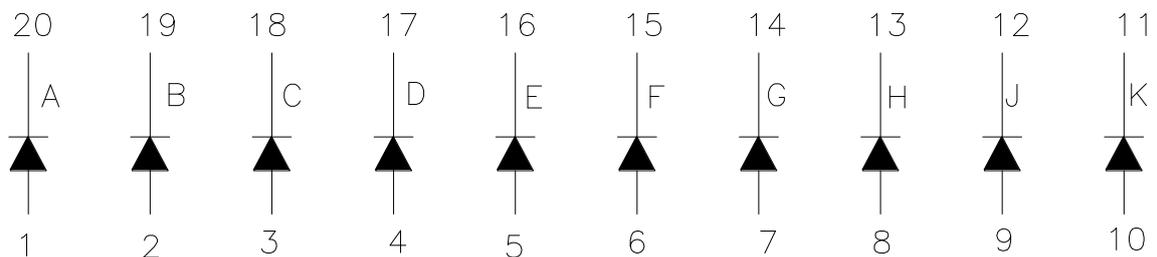
PART NO.	DESCRIPTION
AlInGaP Super Red	Universal
LTA-10102KR	Ten Rectangular Bar

### PACKAGE DIMENSIONS



- NOTES: 1. All dimensions are in millimeters. Tolerances are  $\pm 0.25$  mm unless otherwise note.  
 2. Pin tip's shift tolerance is  $\pm 0.4$  mm.

### INTERNAL CIRCUIT DIAGRAM



—▶— : AllnGaP Super Red

**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	Anode A
2	Anode B
3	Anode C
4	Anode D
5	Anode E
6	Anode F
7	Anode G
8	Anode H
9	Anode J
10	Anode K
11	Cathode K
12	Cathode J
13	Cathode H
14	Cathode G
15	Cathode F
16	Cathode E
17	Cathode D
18	Cathode C
19	Cathode B
20	Cathode A

**ABSOLUTE MAXIMUM RATING**

<b>PARAMETER</b>	<b>MAXIMUM RATING</b>	<b>UNIT</b>
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment ( 1/10 Duty Cycle, 0.1ms Pulse Width )	90	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25°C Per Segment	0.33	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 3 seconds at 260 <sup>0</sup> C or of temperature unit (during assembly) not over max. temperature rating above.		

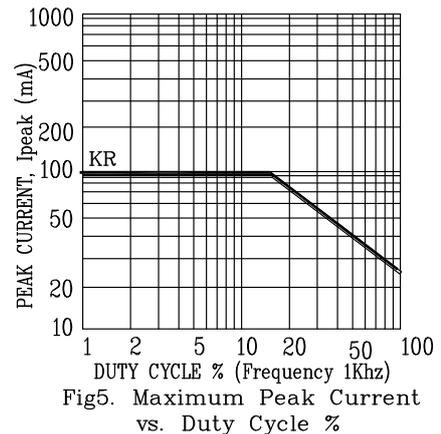
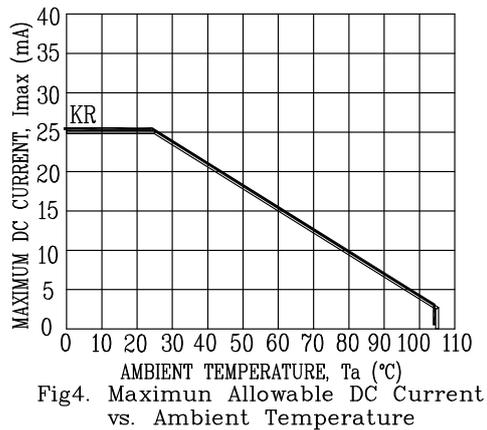
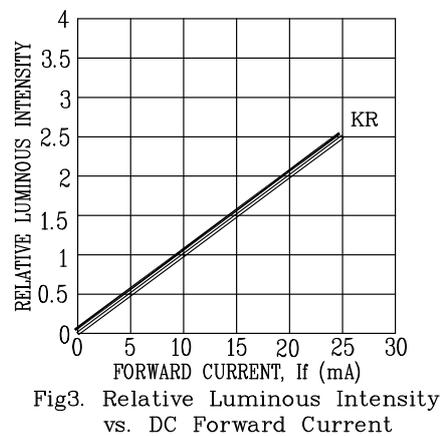
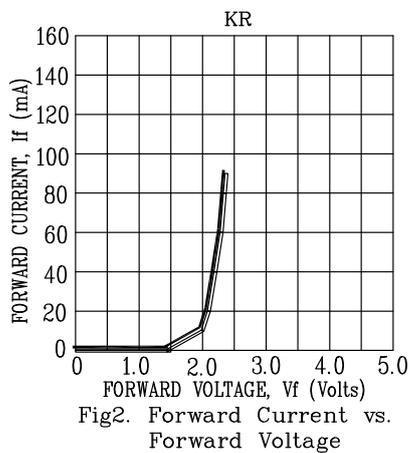
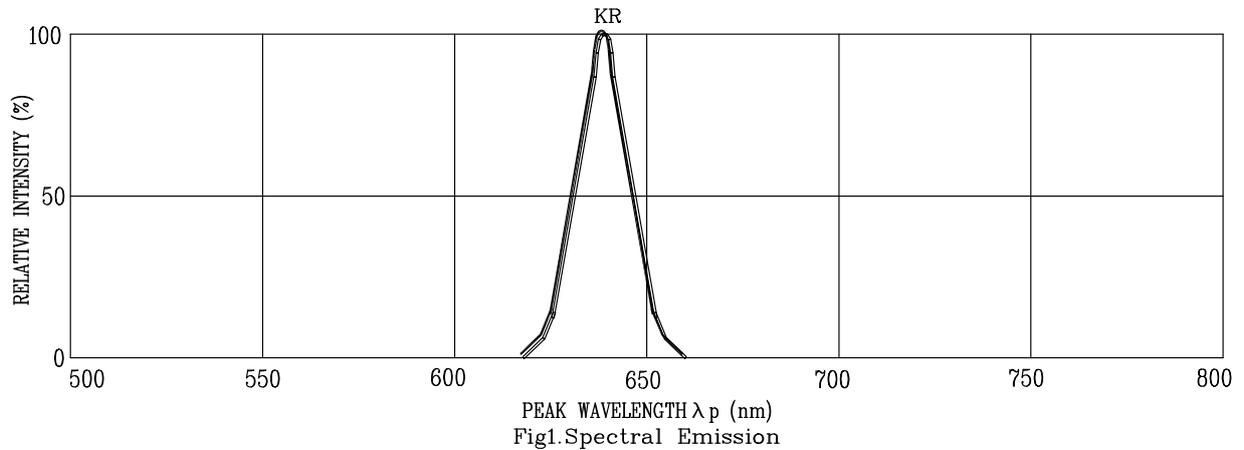
**ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C**

<b>PARAMETER</b>	<b>SYMBOL</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNIT</b>	<b>TEST CONDITION</b>
Average Luminous Intensity Per Segment	I <sub>v</sub>	200	675		μcd	I <sub>F</sub> = 1mA
Peak Emission Wavelength	λ <sub>p</sub>		639		nm	I <sub>F</sub> = 20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> = 20mA
Dominant Wavelength	λ <sub>d</sub>		631		nm	I <sub>F</sub> = 20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.0	2.6	V	I <sub>F</sub> = 20mA
Reverse Current Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5V
Luminous Intensity Matching Ratio (Similar Light Area)	I <sub>v</sub> -m			2 : 1		I <sub>F</sub> = 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