



LED Display

Product Data Sheet

LTP-14088KD-J

Spec No.: DS30-2008-0194

Effective Date: 01/20/2009

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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LED DISPLAY**LTP-14088KD-J**
DATA SHEET

Rev	Description	By
01	RDR Original Spec	Phanomkorn J. December 01, 2008
-	NPPR Original Spec	Phanomkorn J. December 19, 2008

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FEATURES

- * 1.50 inch (37.0 mm) MATRIX HEIGHT
- * LOW POWER REQUIREMENT
- * SINGLE PLANE, WIDE VIEWING ANGLE
- * SOLID STATE RELIABILITY
- * 8 ×8 ARRAY WITH X-Y SELECT
- * COMPATIBLE WITH USASCII AND EBCDIC CODES
- * STACKABLE HORIZONTALLY
- * CATEGORIZED FOR LUMINOUS INTENSITY
- * **LEAD-FREE PACKAGE (ACCORDING TO RoHS)**

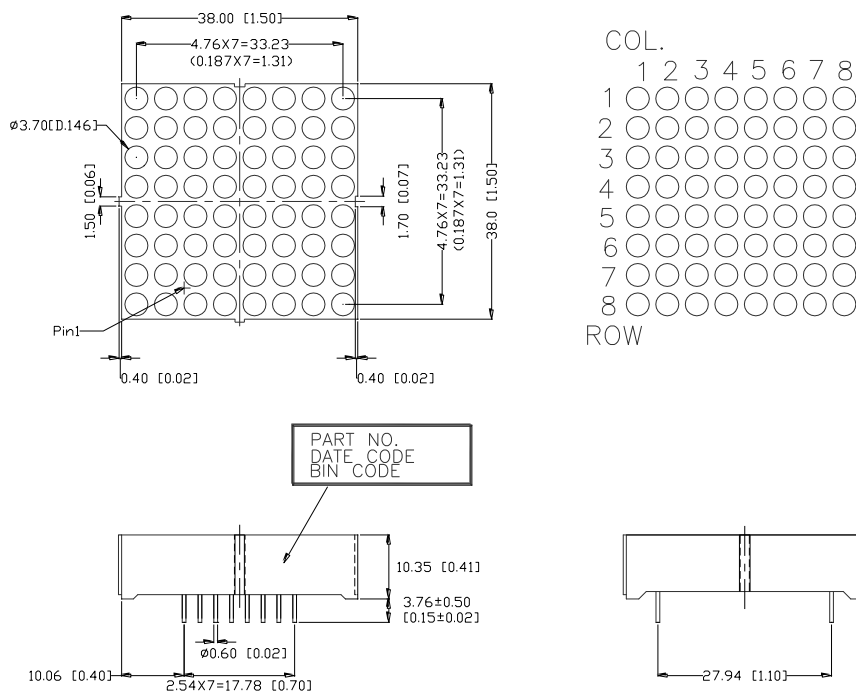
DESCRIPTION

The LTP-14088KD-J is a 1.50 inch (37.0 mm) matrix height 8×8 dot matrix display. This device uses AS-AlInGaP Hyper Red LED chips (AlInGaP epi on GaAs substrate). The matrix display has a black face and white dot color.

DEVICE

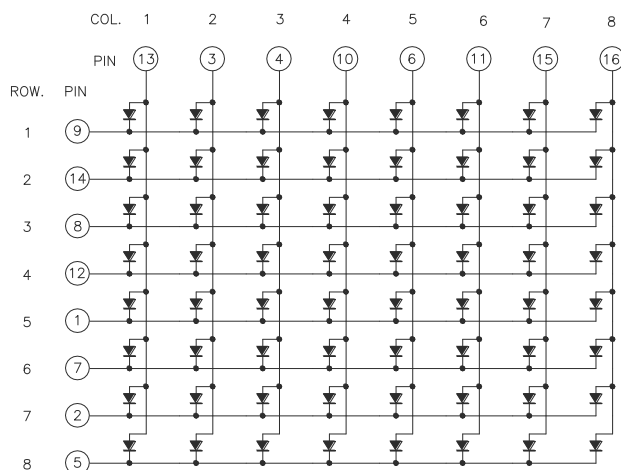
PART NO.	DESCRIPTION
AlInGaP Hyper Red	Anode Column
LTP-14088KD-J	Cathode Row

PACKAGE DIMENSIONS



- NOTES: 1. All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01") unless otherwise noted.
2. Pin tip's shift tolerance is ± 0.4 mm.
3. Foreign material on segment ≤ 10 mils
4. Ink contamination (surface) ≤ 20 mils
5. Bending $\leq 1/100$
6. Bubble in segment ≤ 10 mils

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

NO	CONNECTION
1	CATHODE ROW 5
2	CATHODE ROW 7
3	ANODE COLUMN 2
4	ANODE COLUMN 3
5	CATHODE ROW 8
6	ANODE COLUMN 5
7	CATHODE ROW 6
8	CATHODE ROW 3
9	CATHODE ROW 1
10	ANODE COLUMN 4
11	ANODE COLUMN 6
12	CATHODE ROW 4
13	ANODE COLUMN 1
14	CATHODE ROW 2
15	ANODE COLUMN 7
16	ANODE COLUMN 8

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per Dot	70	mW
Peak Forward Current Per Dot (Frequency 1Khz,18% duty cycle)	90	mA
Average Forward Current Per Dot	25	mA
Derating Linear From 25°C Per Dot	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 3 seconds at 260 ⁰ C or of temperature unit (during assembly) not over max. temperature rating above.		

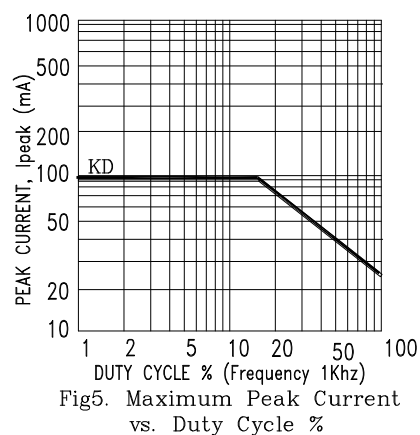
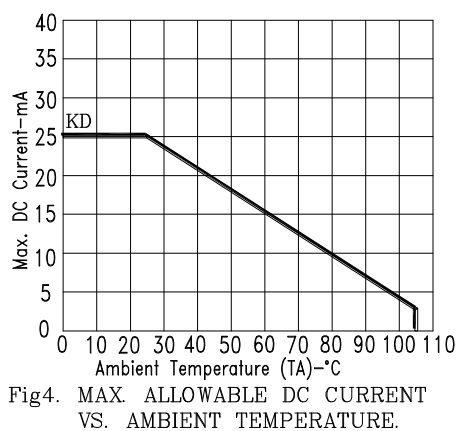
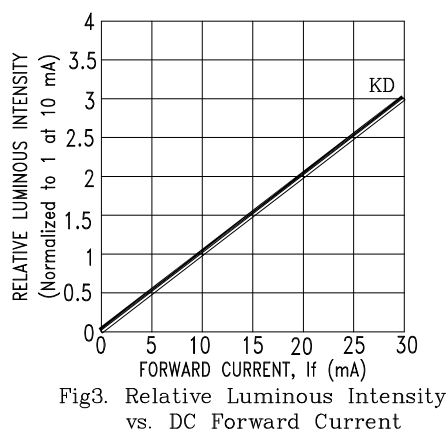
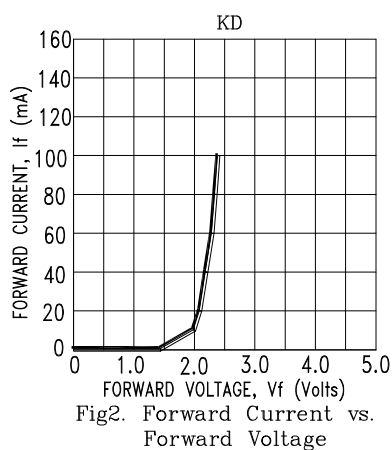
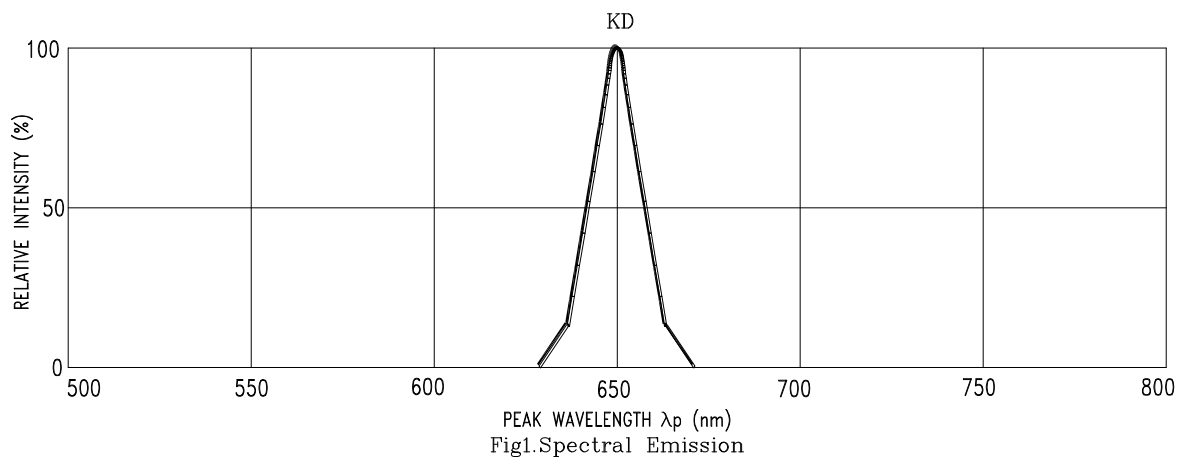
ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _V	1020	2475		μcd	I _p =32mA 1/16Duty
Peak Emission Wavelength	λ _p		650		nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d		639		nm	I _F =20mA
Forward Voltage any Dot	V _F		2.1	2.6	V	I _F =20mA
			2.3	2.8		I _F =80mA
Reverse Current any Dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I _{V-m}			2:1		I _p =32mA 1/16Duty

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 : KD=AlInGaP HYPER RED