

FEATURES

- * 1.4 inch (35.76 mm) MATRIX HEIGHT.
- * LOW POWER REQUIREMENT.
- * SINGLE PLANE, WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.
- * 5 × 8 ARRAY WITH X-Y SELECT.
- * COMPATIBLE WITH USASCII AND EBCDIC CODES.
- * STACKABLE HORIZONTALLY.
- * CATEGORIZED FOR LUMINOUS INTENSITY.

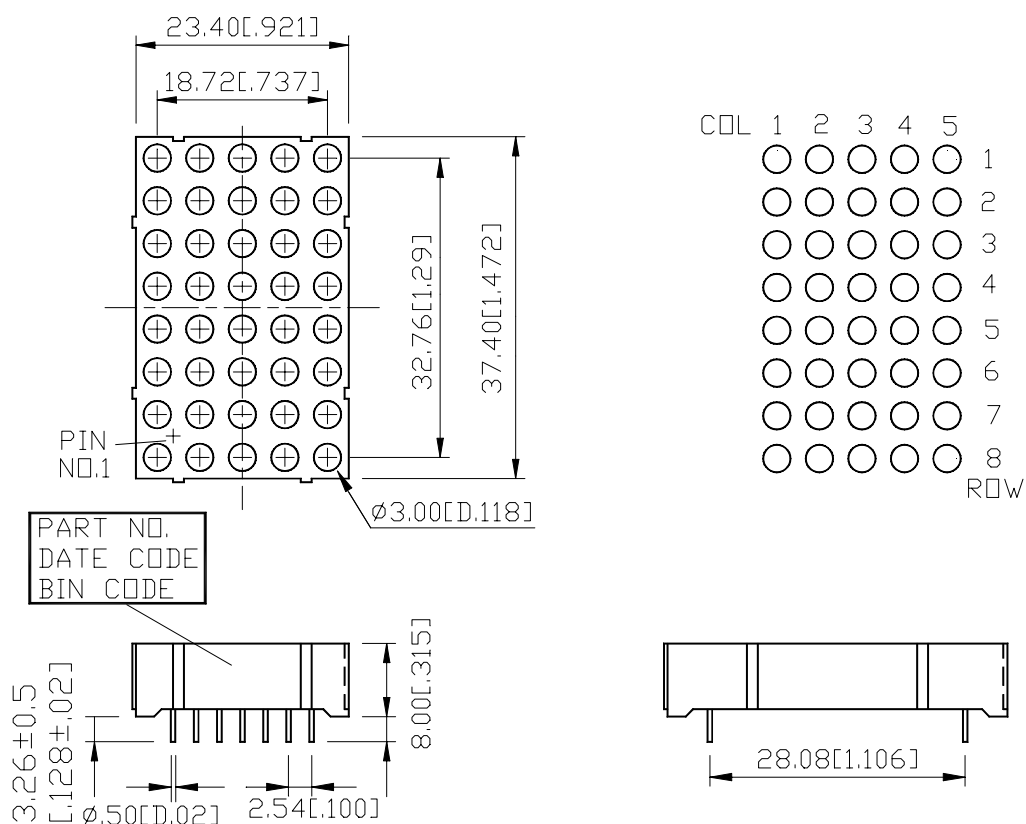
DESCRIPTION

The LTP-14158AKR01 is a 1.4 inch (35.76 mm) matrix height 5 × 8 dot matrix display. This device utilizes AlInGap Super Red LED chips, which are made from AlInGaP on a non transparent GaAs substrate, and has a red face and red dot color.

DEVICE

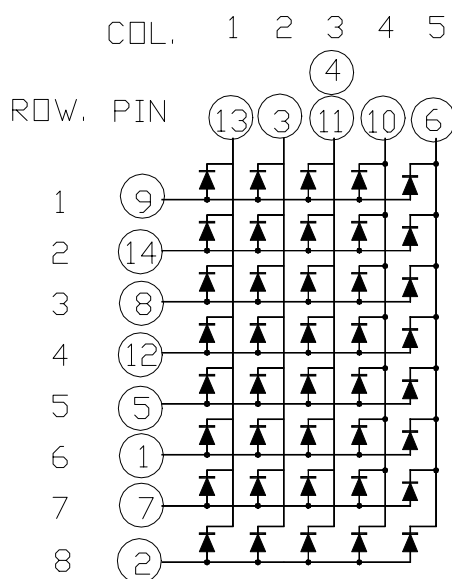
PART NO.	DESCRIPTION
SUPER RED	Cathode Column
LTP-14158AKR01	Anode Row

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No.	CONNECTION
1	ANODE ROW 6
2	ANODE ROW 8
3	CATHODE COLUMN 2
4	CATHODE COLUMN 3
5	ANODE ROW 5
6	CATHODE COLUMN 5
7	ANODE ROW 7
8	ANODE ROW 3
9	ANODE ROW 1
10	CATHODE COLUMN 4
11	CATHODE COLUMN 3
12	ANODE ROW 4
13	CATHODE COLUMN 1
14	ANODE ROW 2

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per Dot	36	mW
Peak Forward Current Per Dot	100	mA
Average Forward Current Per Dot	13	mA
Derating Linear From 25°C Per Dot	0.17	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	
Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	48	58		mcd	I _p =32mA 1/16Duty
Peak Emission Wavelength	λ _p	634	639	644	nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d	626	631	636	nm	I _F =20mA
Forward Voltage any Dot	V _F		2.0	2.6	V	I _F =20mA
Reverse Current any Dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =2mA

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)

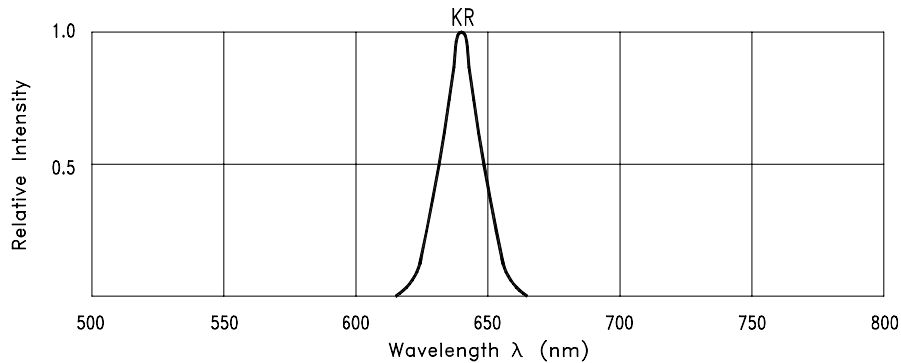


Fig1. Relative Intensity vs. Wavelength

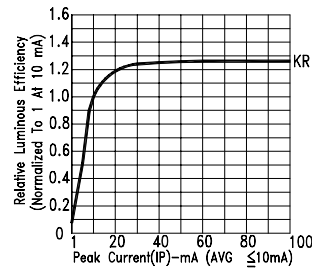


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

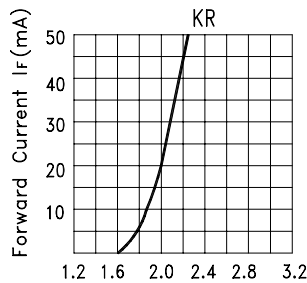


Fig3. Forward Current vs. Forward Voltage

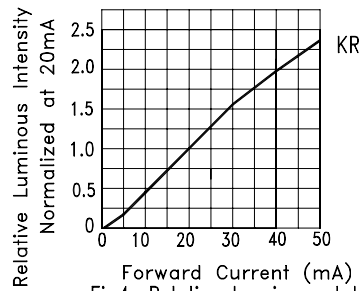


Fig4. Relative Luminous Intensity vs. Forward Current

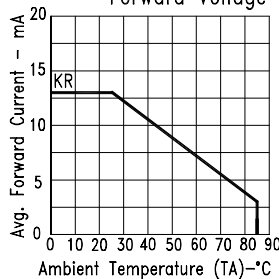


Fig5. Max. Average Forward Current vs. Ambient Temperature.

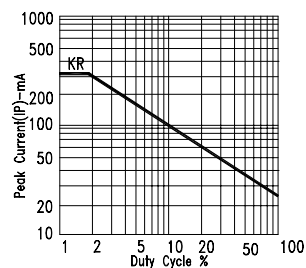


Fig6. Max. Peak Current vs Duty Cycle % (Refresh Rate 1KHz)

NOTE : KR=AlInGaP Super Red