FEATURES

* 1.97 inch (50.15 mm) MATRIX HEIGHT.
* LOW POWER REQUIREMENT.
* SINGLE PLANE, WIDE VIEWING ANGLE.
* SOLID STATE RELIABILITY.
* 5× 7 ARRAY WITH X-Y SELECT.
* COMPATIBLE WITH USASCII AND EBCDIC CODES.
* STACKABLE HORIZONTALLY.
* CATEGORIZED FOR LUMINOUS INTENSITY.

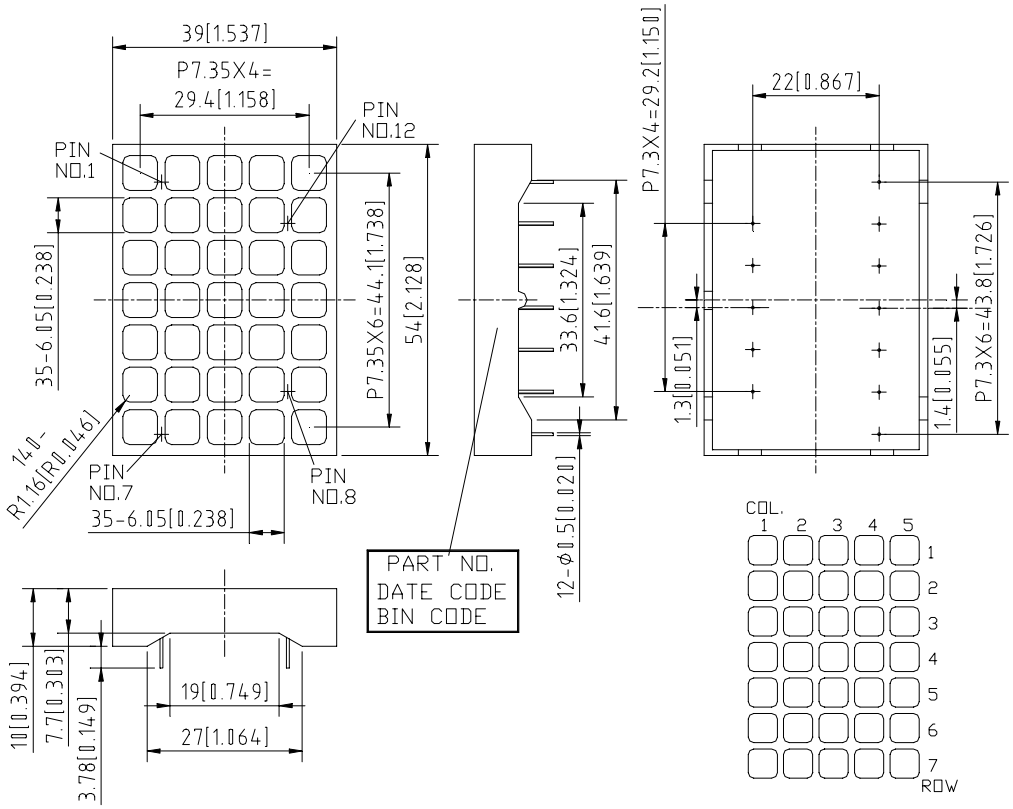
DESCRIPTION

The LTP-2257KA is a 1.97 inch (50.15 mm) matrix height 5× 7 dot matrix display. This device utilizes AlInGaP Red-Orange LED chips, which are made from AlInGaP on GaAs substrate, and has a black face and white dot color.

DEVICE

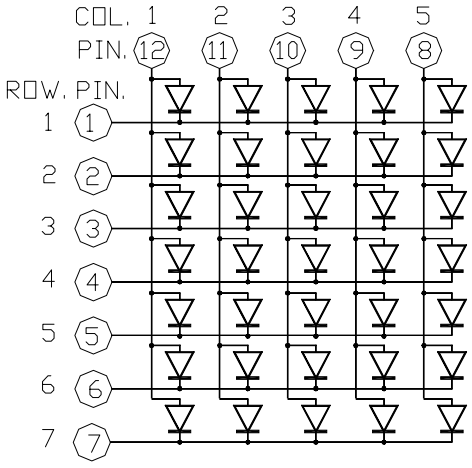
PART NO.	DESCRIPTION
AlInGaP RED ORANGE	ANODE COLUMN
LTP-2257KA	CATHODE ROW

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	CATHODE ROW 1
2	CATHODE ROW 2
3	CATHODE ROW 3
4	CATHODE ROW 4
5	CATHODE ROW 5
6	CATHODE ROW 6
7	CATHODE ROW 7
8	ANODE COLUMN 5
9	ANODE COLUMN 4
10	ANODE COLUMN 3
11	ANODE COLUMN 2
12	ANODE COLUMN 1

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 Derating Linear From 25℃ Per Dot	13 0.17	mA mA/℃
Reverse Voltage Per Dot	5	V
Operating Temperature Range	-35℃ to +85℃	
Storage Temperature Range	-35℃ to +85℃	
Solder Temperature: max 260℃ 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	2100	5000		μcd	I_p=32mA 1/16 Duty
Peak Emission Wavelength	λp		621		nm	I_F=20mA
Spectral Line Half-Width	Δλ		18		nm	I_F=20mA
Dominant Wavelength	λd		615		nm	I_F=20mA
Forward Voltage any Dot	V_F		2.05	2.6	V	I_F=20mA
Reverse Current any Dot	I_R			100	μA	V_R=15V
Luminous Intensity Matching Ratio	I_V-m			2:1		Ip=32mA 1/16 Duty

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)

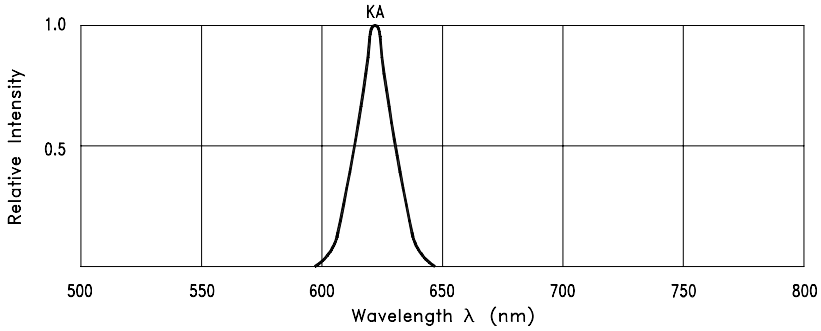


Fig1. Relative Intensity vs. Wavelength

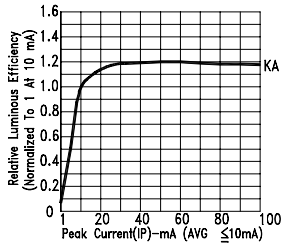


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

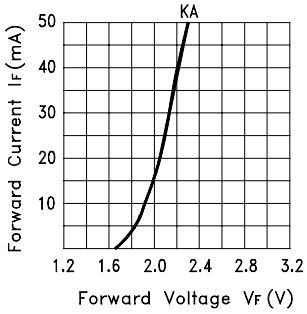


Fig3. Forward Current vs. Forward Voltage

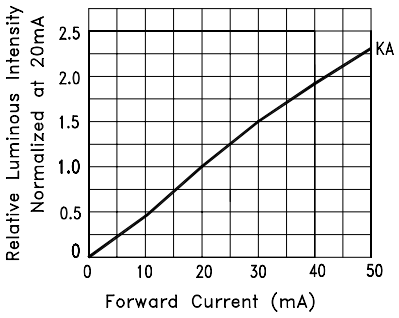


Fig4. Relative Luminous Intensity vs. Forward Current

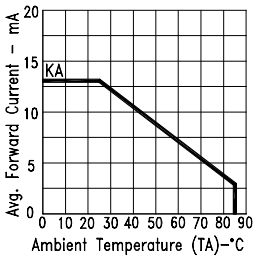


Fig5. Max. Average Forward Current vs. Ambient Temperature.

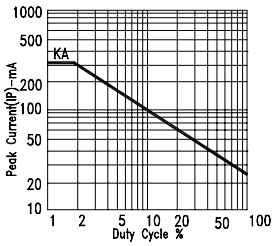


Fig6. Max. Peak Current vs Duty Cycle % (Refresh Rate 1KHz)

NOTE : AlInGaP Red Orange