FEATURES

＊2.0 inch (50.80 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.

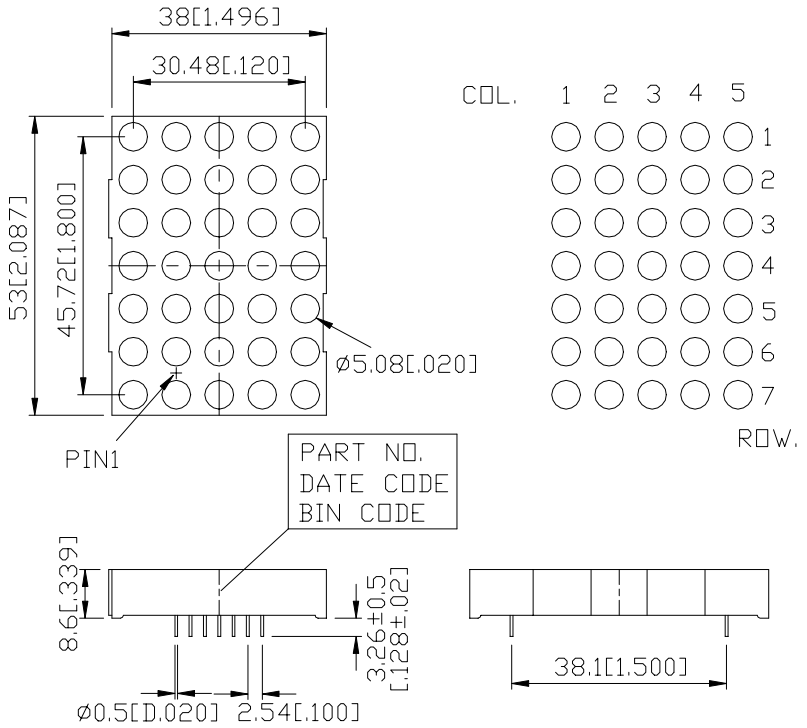
DESCRIPTION

The LTP-2157AHR is a 2.0 inch (50.80 mm) matrix height 5×7 dot matrix display. This device utilizes high efficiency red LED chips, which are made from GaAsP on a transparent GaP substrate, and has a red face and red dot color.

DEVICE

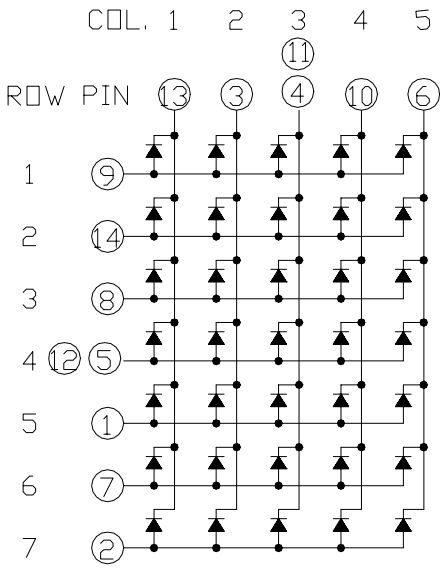
PART NO.	DESCRIPTION
HI-EFF. RED	CATHODE COLUMN
LTP-2157AHR	ANODE ROW

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

NOTES : 1. Pin 4 & 11 are internally connected.
2. Pin 5 & 12 are internally connected.

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	1780	4800		μcd	I_p=80mA 1/16Duty
Peak Emission Wavelength	λp		635		nm	I_F=20mA
Spectral Line Half-Width	Δλ		40		nm	I_F=20mA
Dominant Wavelength	λd		623		nm	I_F=20mA
Forward Voltage any Dot	V_F		2.0	2.6	V	I_F=20mA
			2.6	3.4		I_F=80mA
Reverse Current any Dot	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ratio	I_V-m			2:1		I_F=10mA

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

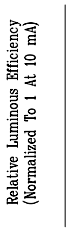


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT