

FEATURES

- * 0.3 inch (7.62 mm) MATRIX HEIGHT.
- * LOW POWER REQUIREMENT.
- * SINGLE PLANE, WIDE VIEWING ANGLE
- * SOLID STATE RELIABILITY.
- * 5x7 ARRAY WITH X-Y SELECT.
- * COMPATIBLE WITH USASCLL AND EBCDIC CODES.
- * STACKABLE HORIZONTALLY.
- * CATEGORIZED FOR LUMINOUS INTENSITY.

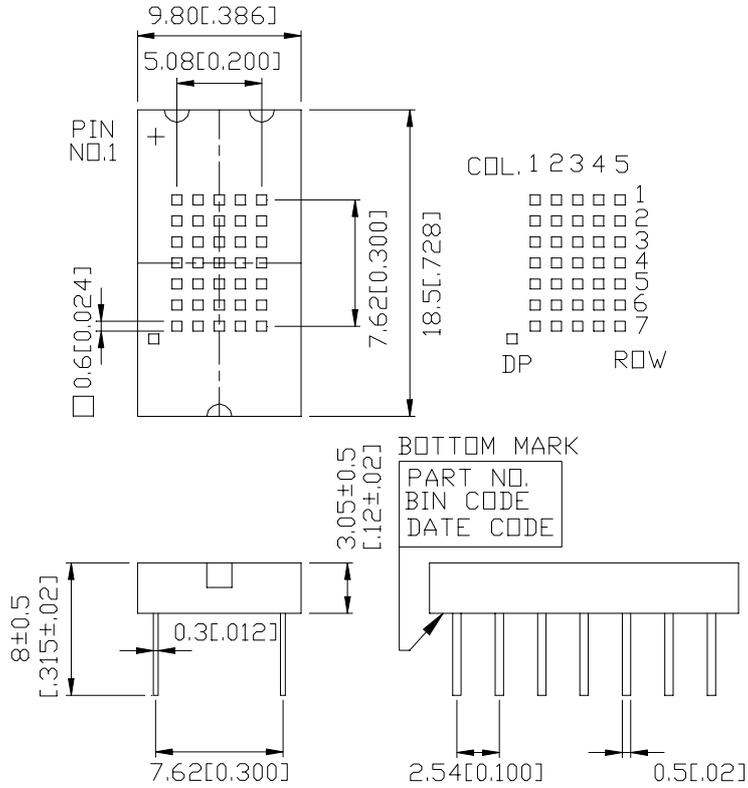
DESCRIPTION

The LTP-305R is a 0.3 inch (7.62 mm) matrix height 5x7 dot matrix display. This device utilizes red LED chips, which are made from GaAsP on a transparent GaAs substrate, and has a red package.

DEVICE

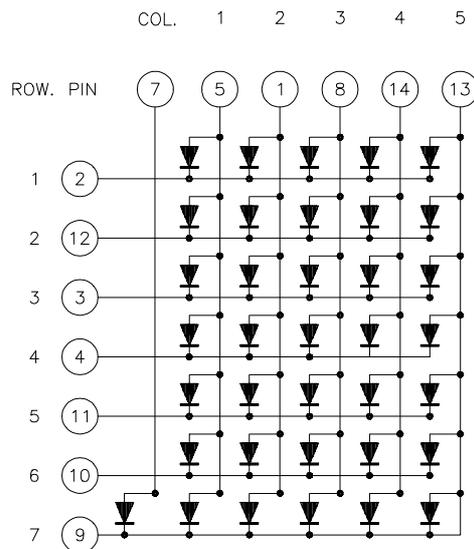
PART NO.	DESCRIPTION
Red	Anode Column, Cathode Row
LTP-305R	Lt. Hand Decimal

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No	CONNECTION
1	ANODE COLUMN 2
2	CATHODE ROW 1
3	CATHODE ROW 3
4	CATHODE ROW 4
5	ANODE COLUMN 1
6	NO PIN
7	ANODE DECIMAL(POINT)
8	ANODE COLUMN 3
9	CATHODE ROW 7
10	CATHODE ROW 6
11	CATHODE ROW 5
12	CATHODE ROW 2
13	ANODE COLUMN 5
14	ANODE COLUMN 4

ABSOLUTE MAXIMUM RATING AT T_A=25°C

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per Dot	26	mW
Peak Forward Current Per Dot	110	mA
Average Forward Current Per Dot	14	mA
Derating Linear From 25 ⁰ C Per Dot	0.19	mA/ ⁰ C
Reverse Voltage Per Dot	5	V
Operating Temperature Range	-35 ⁰ C to +85 ⁰ C	
Storage Temperature Range	-35 ⁰ C to +85 ⁰ C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 ⁰ C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	219	400		μcd	I _p =80mA 1/16DUTY
Peak Emission Wavelength	λ _p		655		nm	I _F =20mA
Spectral Line Half-Width	Δλ		24		nm	I _F =20mA
Dominant Wavelength	λ _d		651		nm	I _F =20mA
Forward Voltage any Dot	V _F		1.7	2	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 _p =80mA 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)

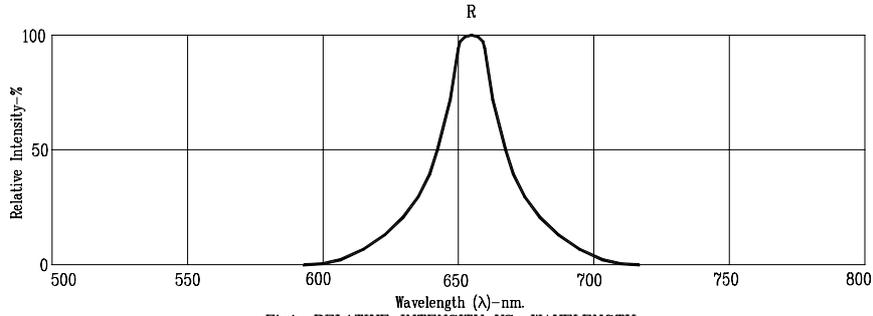


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

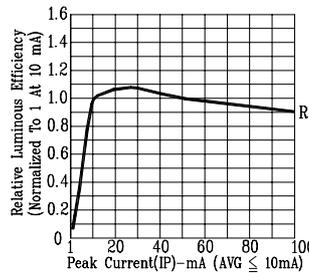


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

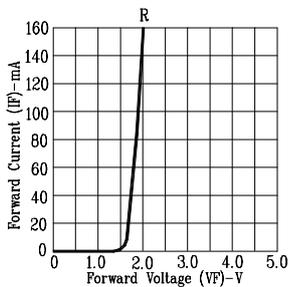


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

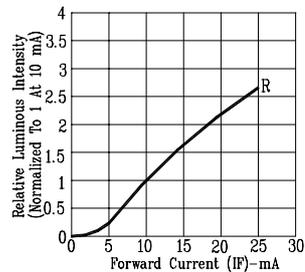


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

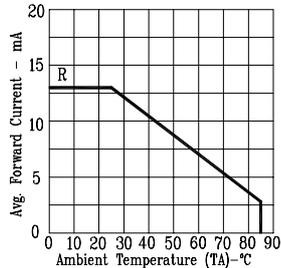


Fig5. MAX AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

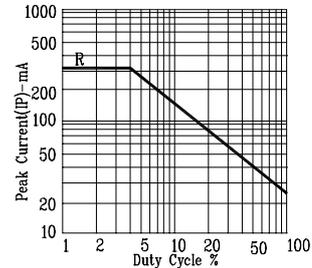


Fig6. MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: R=RED