

LED DISPLAY**LTP-305HR**
DATA SHEET

Rev	Description	By
-	NPPR Original Spec	Ruby Lee 12/21/2000
A	Change Operating Temperature Range	Erin Cheng 07/08/2004
B	Revise height of package from 3.05 ±0.5mm to 3.50 ±0.5mm Add more the product's spec	Phanomkorn J 02/15/2012

Spec No.	DS-30-97-087
Date	02/15/2012
Revision No.	B
Page No.	0 OF 5
Customer Approval	
Date	

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
- * LEAD-FREE PACKAGE (ACCORDING TO ROHS)

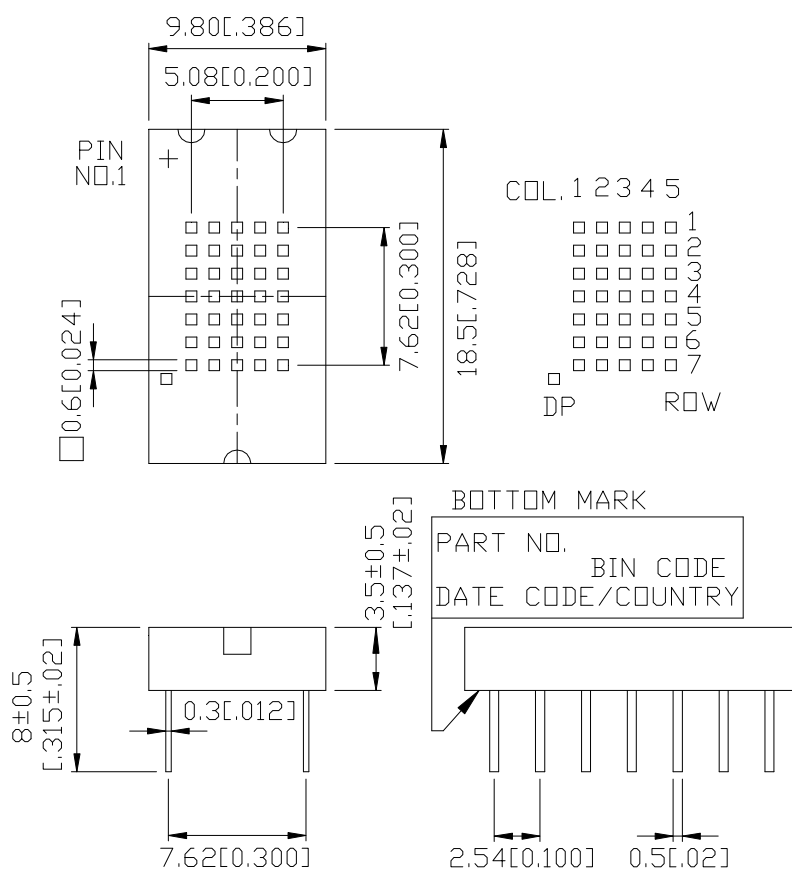
DESCRIPTION

The LTP-305HR is a 0.3 inch (7.62 mm) matrix height 5x7 dot matrix display. This device uses Hi-Eff. RED LED chips (GaAsP epi on GaP substrate).The display has red package.

DEVICE

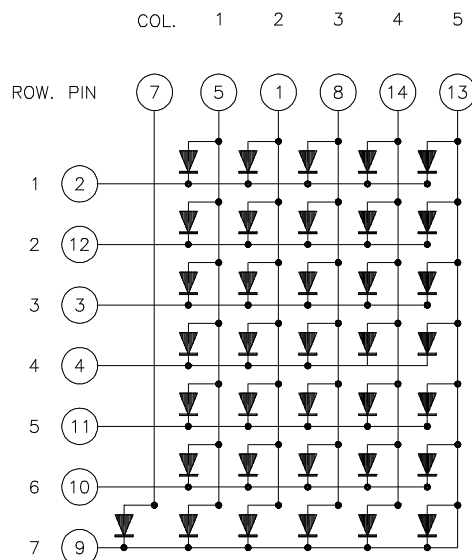
PART NO.	DESCRIPTION
Hi-Eff. Red	ANODE COLUMN
LTP-305HR	CATHODE ROW

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

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per Dot	36	mW
Peak Forward Current Per Dot (Frequency 1Khz, 10% duty cycle)	75*	mA
Average Forward Current Per Dot	10	mA
Forward Current Derating From 25 ⁰ C	0.14	mA/ ⁰ C
Reverse Voltage Per Dot	5	V
Operating Temperature Range	-40 ⁰ C to +85 ⁰ C	
Storage Temperature Range	-40 ⁰ C to +85 ⁰ 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.		

* see figure 5 to establish pulsed condition

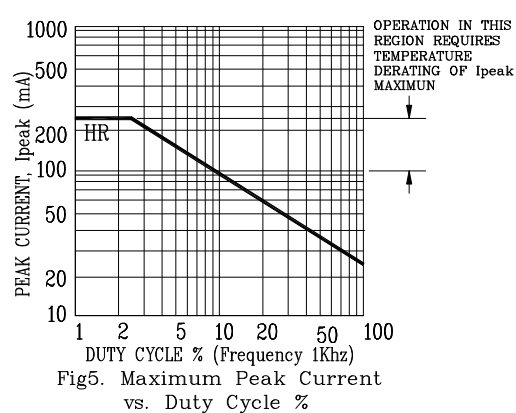
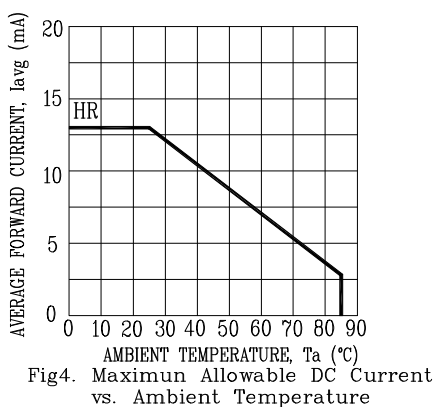
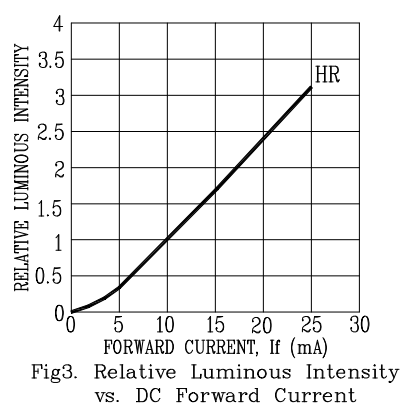
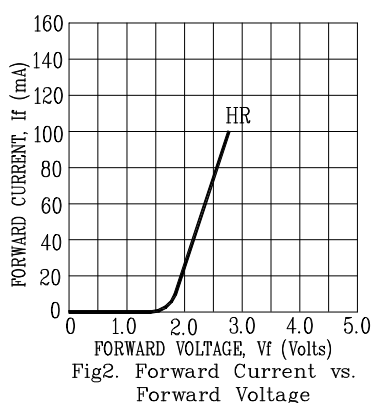
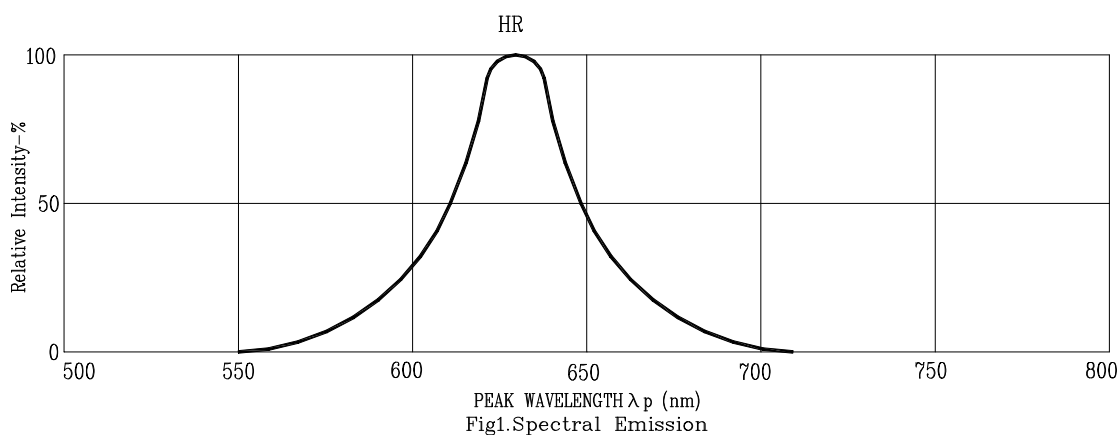
ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A = 25⁰C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity Per Dot	I _v	630	1600		μcd	I _P = 80mA , 1/16Duty
Peak Emission Wavelength	λ _p		635		nm	I _F = 20mA
Spectral Line Half-Width	Δλ		40		nm	I _F = 20mA
Dominant Wavelength	λ _d		623		nm	I _F = 20mA
Forward Voltage Per Dot	V _F		2	2.6	V	I _F = 20mA
Reverse Current Per Dot	I _R			100	μA	V _R = 5V
Luminous Intensity Matching Ratio (Similar Light Area)	I _{v-m}			2 : 1		I _P = 80mA , 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)



NOTE: HR= HI-EFF RED