LED DISPLAY

LTP-305G
DATA SHEET

Rev	Description	By
-	NPPR Original Spec	Erin Cheng 07/20/2004
A	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.	DS30-2004-145
Date	02/15/2012
Revision No.	A
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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)

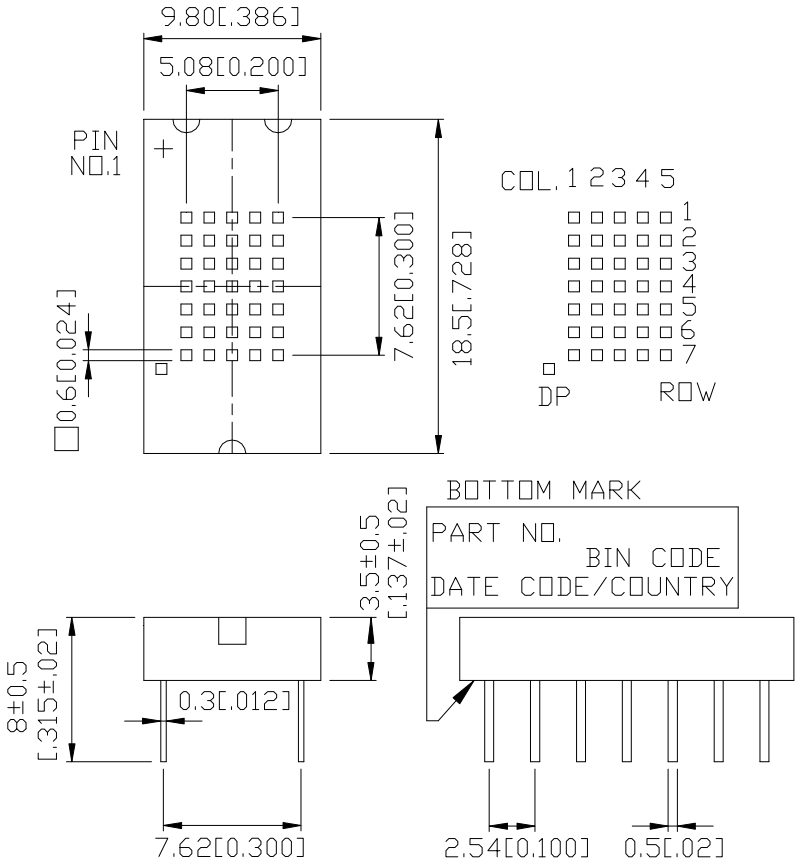
DESCRIPTION

The LTP-305G is a 0.3 inch (7.62 mm) matrix height 5x7 dot matrix display. This device uses GREEN LED chips (GaP epi on GaP substrate). The display has green package.

DEVICE

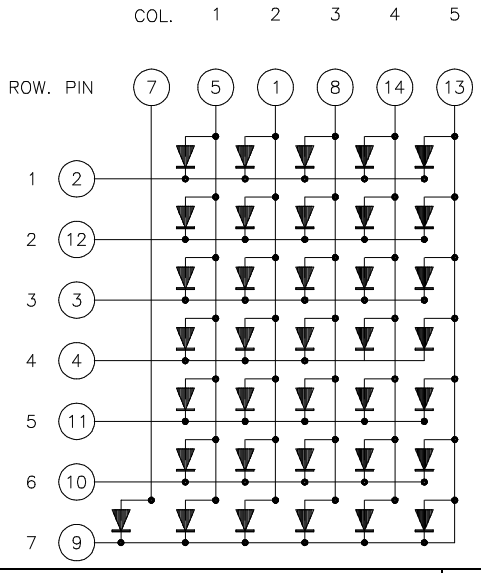
PART NO.	DESCRIPTION
GREEN	ANODE COLUMN
LTP-305G	CATHODE ROW LT. HAND DECIMAL

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

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 25^0C	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

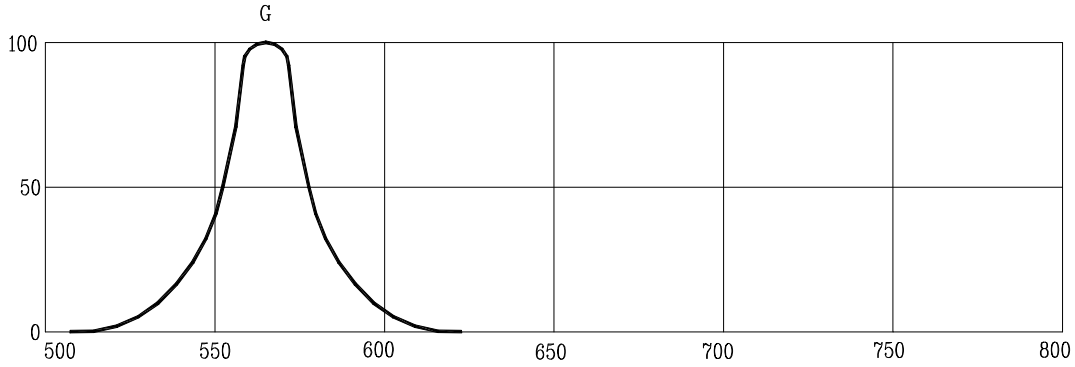
ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A = 25^{o}C

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	λp		565		nm	I_F = 20mA
Spectral Line Half-Width	Δλ		30		nm	I_F = 20mA
Dominant Wavelength	λd		569		nm	I_F = 20mA
Forward Voltage Per Dot	V_F		2.1	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)



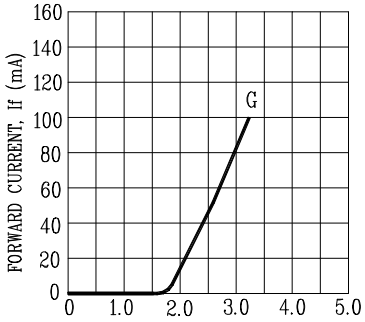


Fig2. Forward Current vs. Forward Voltage

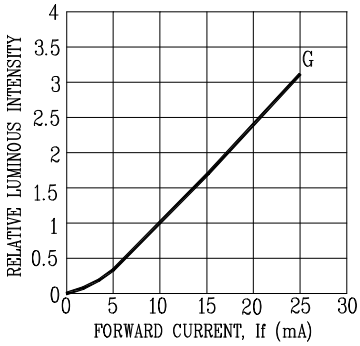


Fig3. Relative Luminous Intensity vs. DC Forward Current

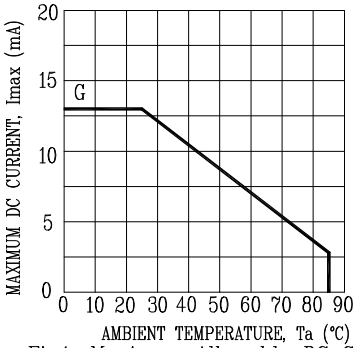


Fig4. Maximun Allowable DC Current vs. Ambient Temperature

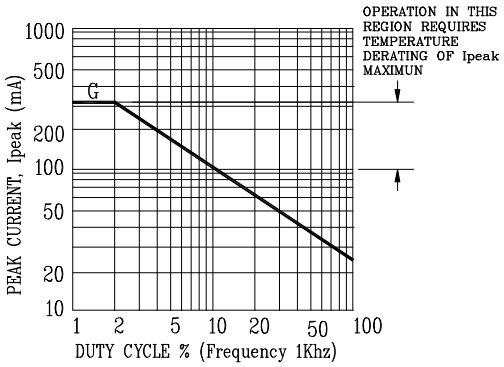


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE: G=GREEN