



LED Display

Product Data Sheet

LTP-757G

Spec No.: DS-30-99-454

Effective Date: 10/10/2012

Revision: C

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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LED DISPLAY**LTP-757G**
DATA SHEET

Rev	Description	By
-	Original Spec	Tina Chen June 06,2000
A	Pb Free	Erin Cheng May 05,2005
B	Add Sub-Con TBK	Chunchunlee July 10,2010
C	- Correct "COL" to "ROW" on page 3 of 5 - Add cosmetic spec - Update Operating & Storage Temperature Rang from -35°C to +85°C become to -35°C to +105°C	Phanomkorn J. September 26,2012

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FEATURES

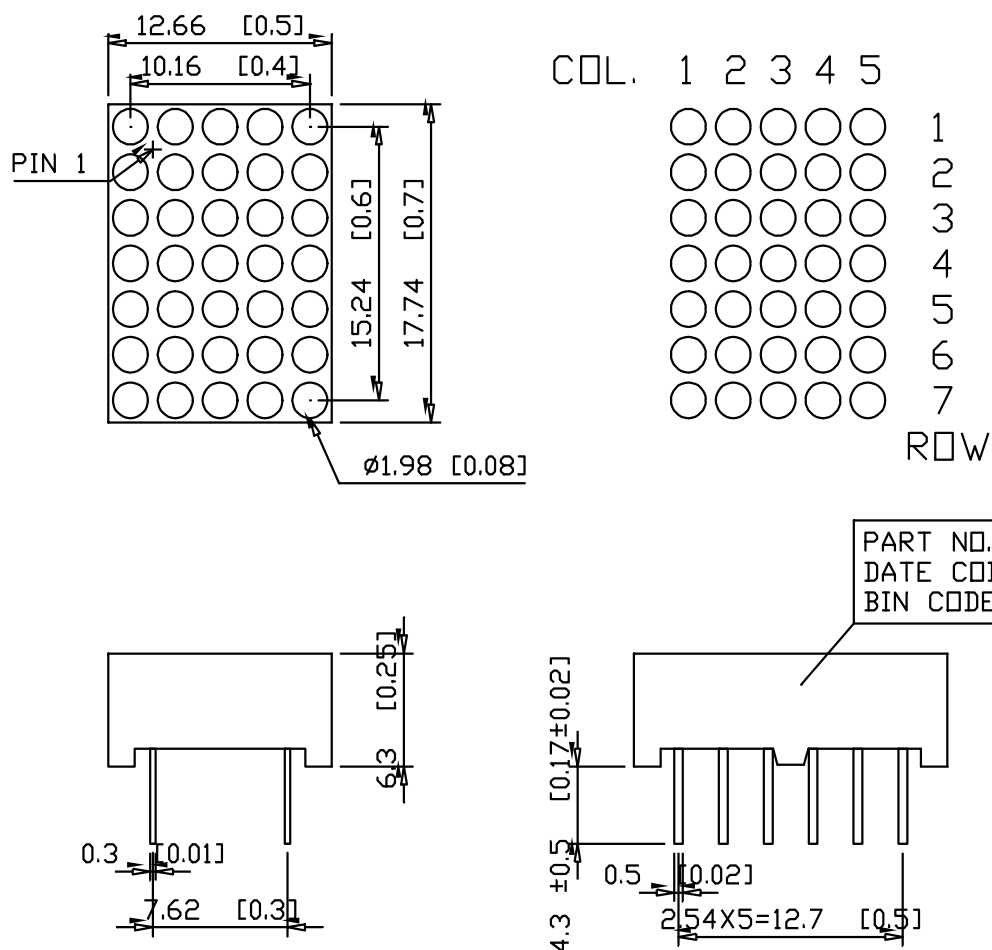
- * 0.7 inch (17.22 mm) DIGIT HEIGHT
- * CONTINUOUS UNIFORM SEGMENTS
- * LOW POWER REQUIREMENT
- * EXCELLENT CHARACTERS APPEARANCE
- * HIGH BRIGHTNESS & HIGH CONTRAST
- * WIDE VIEWING ANGLE
- * SOLID STATE RELIABILITY
- * CATEGORIZED FOR LUMINOUS INTENSITY
- * LEAD-FREE PACKAGE (ACCORDING TO ROHS)

DESCRIPTION

The LTP-757G is a 0.7 inch (17.22 mm) matrix height 5 x 7 dot matrix display. This device uses GREEN LED chips (GaP epi on GaP substrate). The display has gray face and white dots.

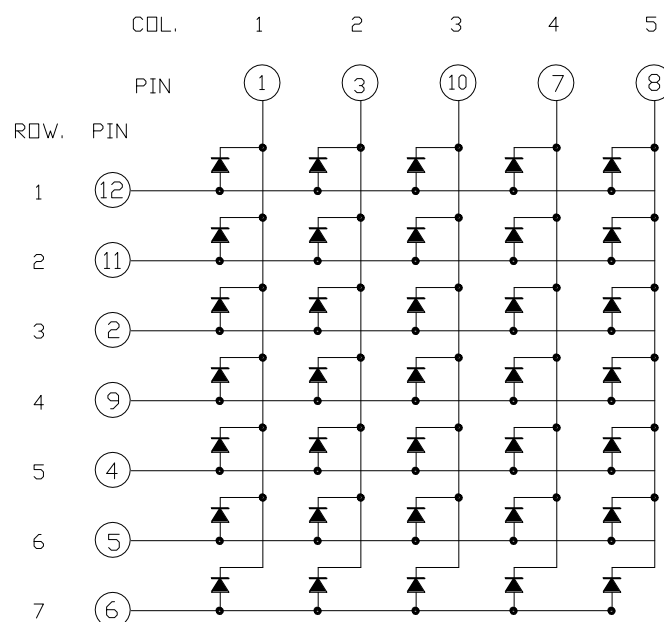
DEVICE

PART NO.	DESCRIPTION
GREEN	Cathode Column
LTP-757G	Anode Row

PACKAGE DIMENSIONS

NOTES:

1. All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01") unless otherwise noted.
2. Pin tip's shift tolerance is ± 0.4 mm.
3. Recommend the best PCB hole: $\varnothing 1.0$ mm
4. Foreign material on segment ≤ 10 mils
5. Ink contamination (surface) ≤ 20 mils
6. Bending $\leq 1/100$
7. Bubble in segment ≤ 10 mils

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No.	CONNECTION
1	CATHODE COLUMN 1
2	ANODE ROW 3
3	CATHODE COLUMN 2
4	ANODE ROW 5
5	ANODE ROW 6
6	ANODE ROW 7
7	CATHODE COLUMN 4
8	CATHODE COLUMN 5
9	ANODE ROW 4
10	CATHODE COLUMN 3
11	ANODE ROW 2
12	ANODE ROW 1

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per dot	32	mW
Peak Forward Current Per dot (Frequency 1Khz, 10% duty cycle)	90*	mA
Average Forward Current Per dot	11	mA
Forward Current Derating from 25 ⁰ C	0.15	mA/ ⁰ C
Reverse Voltage Per dot	5	V
Operating Temperature Range	-35 ⁰ C to +105 ⁰ C	
Storage Temperature Range	-35 ⁰ C to +105 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	I _v	630	2000		μcd	I _F =80mA , 1/16Duty
Peak Emission Wavelength	λ _p		565		nm	I _F =20mA
Spectral Line Half-Width	Δλ		30		nm	I _F =20mA
Dominant Wavelength	λ _d		569		nm	I _F =20mA
Forward Voltage Per dot	V _F		2.1	2.6	V	I _F =20mA
			3.0	3.7	V	I _F =80mA
Reverse Current Per dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I _v -m			2:1		I _F =10mA

NOTES:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.
2. Cross talk specification ≤ 2.5%
3. Reverse voltage is only for IR test. It cannot continue to operate at this situation.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

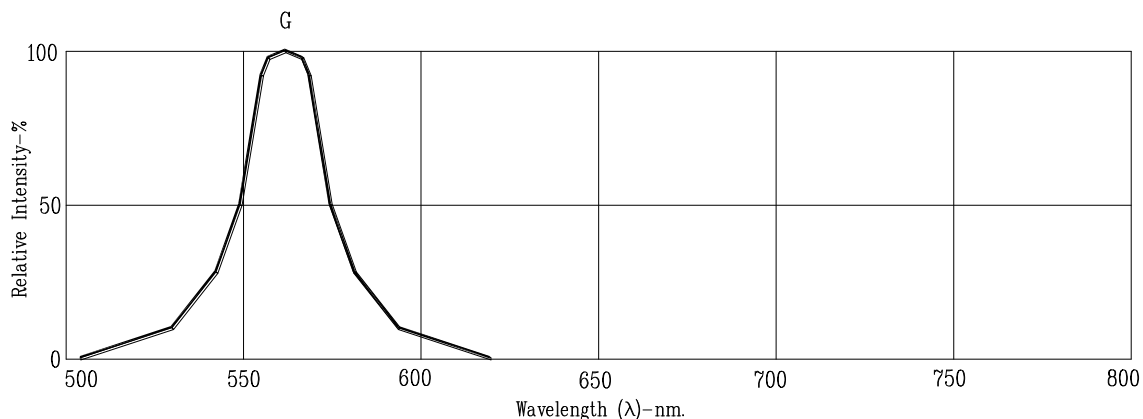


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

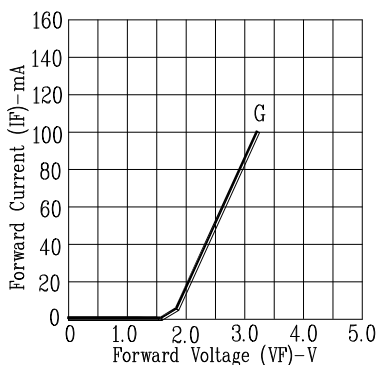


Fig2. FORWARD CURRENT VS. FORWARD VOLTAGE

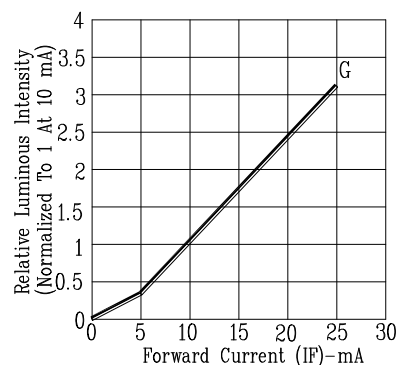


Fig3. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

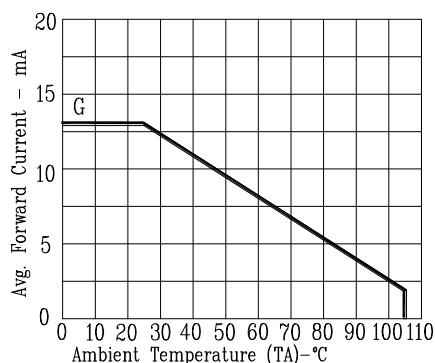


Fig4. MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE.

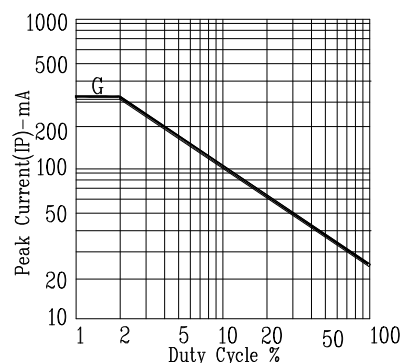


Fig5. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN