LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTP-757G-03

Spec No.: DS-30-99-190

Effective Date: 04/19/2000

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURES

∗0.7 INCH (17.22mm) 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.

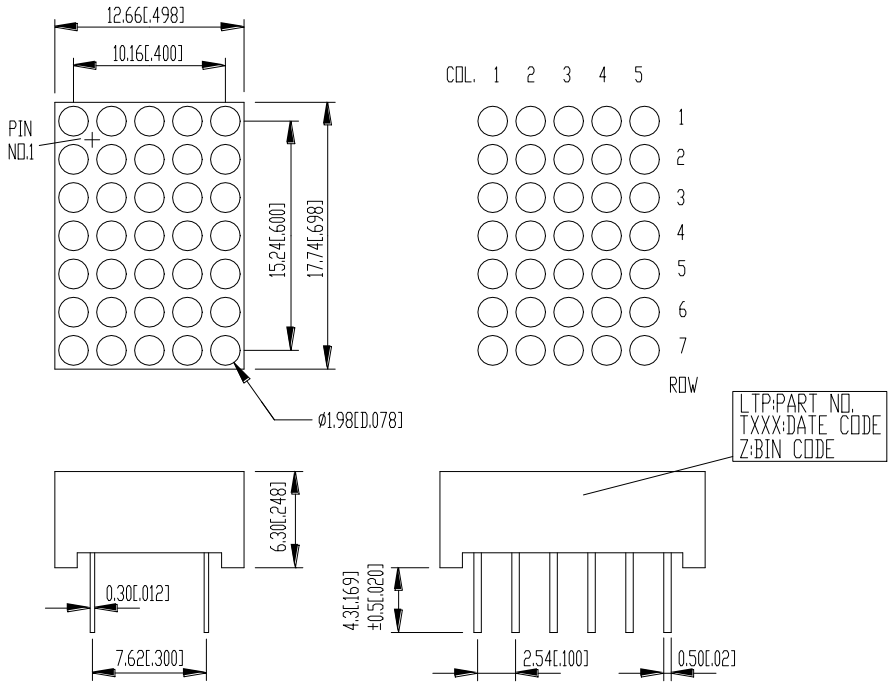
DESCRIPTION

The LTP-757G-03 is a 0.7 inch (17.22 mm) matrix height 5 x 7 dot matrix displays. This device utilizes green LED chips, which are made from GaP on a non-transparent GaP substrate, and has a gray face and white dot.

DEVICE

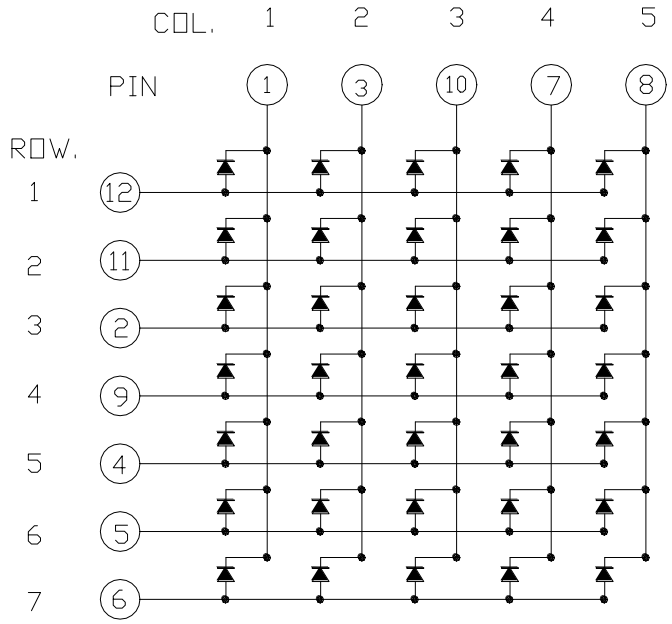
PART NO.	DESCRIPTION
GREEN	Cathode Column
LTP-757G-03	Anode Row

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	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 AT T_A=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	13	mA
Derating Linear From 25°C Per dot	0.17	mA/°C
Reverse Voltage Per dot	5	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	630	2000		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
			3.0	3.7	V	I_F=80mA
Reverse Current Per 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)

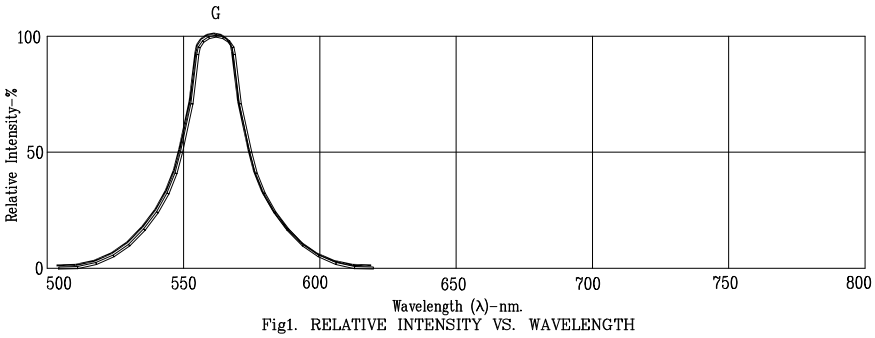


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

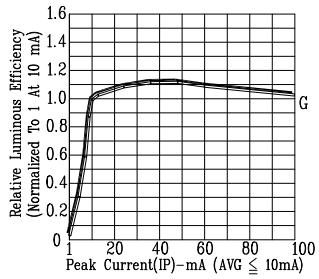


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

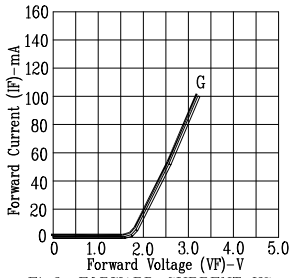


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

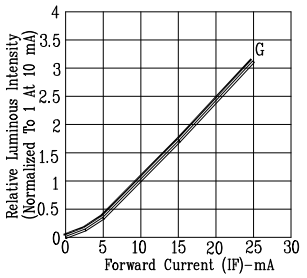


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

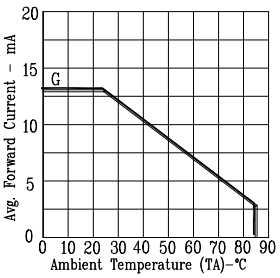


Fig5. MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE.

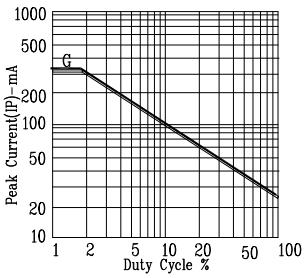


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN