



LED Display

Product Data Sheet

LTP-12157AA

Spec No.: DS30-2000-428

Effective Date: 01/09/2001

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURES

- * 1.2 inch (30.42 mm) MATRIX HEIGHT.
- * LOW POWER REQUIREMENT.
- * SINGLE PLANE, WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.
- * 5x7 ARRAY WITH X-Y SELECT.
- * COMPATIBLE WITH USASCII AND EBCDIC CODES.
- * STACKABLE HORIZONTALLY.
- * CATEGORIZED FOR LUMINOUS INTENSITY.

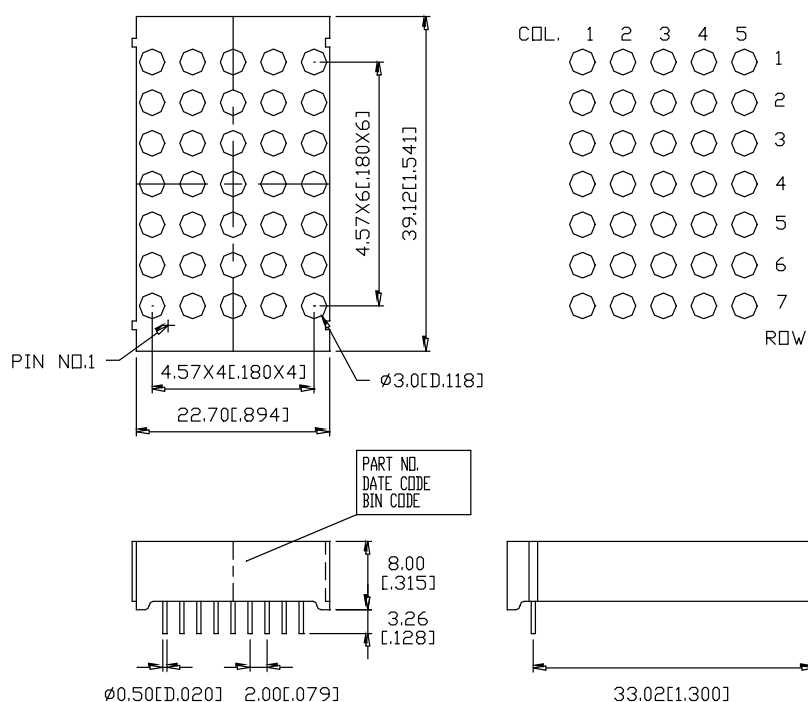
DESCRIPTION

The LTP-12157AA is a 1.2 inch (30.42 mm) matrix height 5 x 7 dot matrix display. This device is multicolor applicable display, which has gray face and white dot color. The red orange LED chips are made from GaAsP on a transparent GaP substrate. The green LED chips are made from GaP on a transparent GaP substrate.

DEVICE

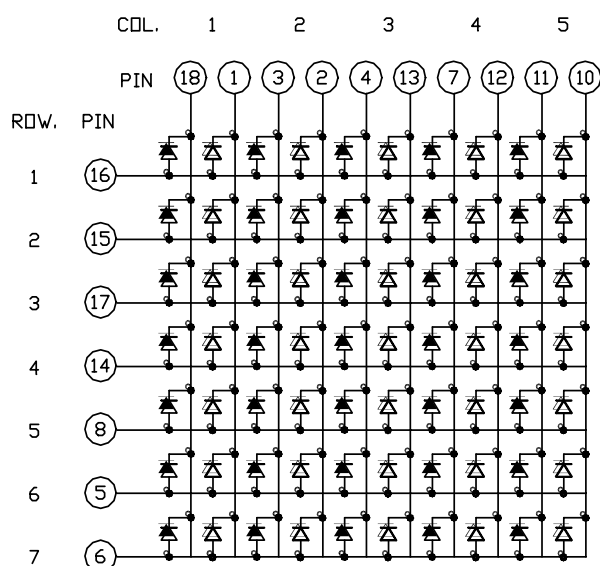
PART NO.	DESCRIPTION
Red Orange & Green	Cathode Column
LTP-12157AA	Anode Row

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



The sign "  " stands for RED ORANGE color chips.
The sign "  " stands for GREEN color chips.

PIN CONNECTION

NO	CONNECTION
1	CATHODE COL. 1 (GREEN)
2	CATHODE COL. 2 (GREEN)
3	CATHODE COL. 2 (RED ORANGE)
4	CATHODE COL. 3 (RED ORANGE)
5	ANODE ROW 6
6	ANODE ROW 7
7	CATHODE COL. 4 (RED ORANGE)
8	ANODE ROW 5
9	NO PIN
10	CATHODE COL. 5 (GREEN)
11	CATHODE COL. 5 (RED ORANGE)
12	CATHODE COL. 4 (GREEN)
13	CATHODE COL. 3 (GREEN)
14	ANODE ROW 4
15	ANODE ROW 2
16	ANODE ROW 1
17	ANODE ROW 3
18	CATHODE COL 1 (RED ORANGE)

ABSOLUTE MAXIMUM RATING AT T_A=25°C

PARAMETER	GREEN	RED ORANGE	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 ⁰ C Per Dot	0.17		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
GREEN

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1500	4000		μcd	I _p =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 any Dot	V _F		2.1	2.6	V	I _F =20mA
			3	3.7	V	I _F =80mA
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

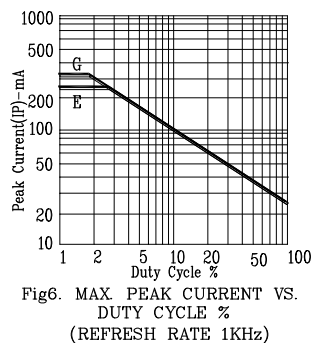
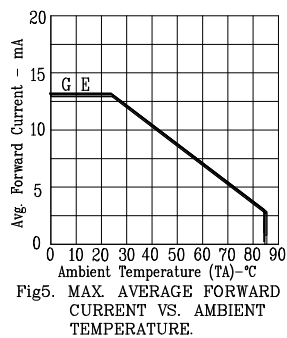
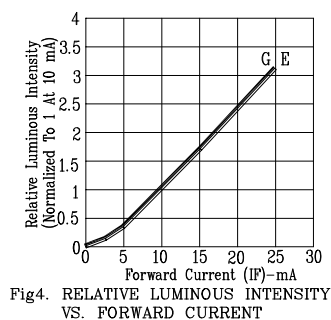
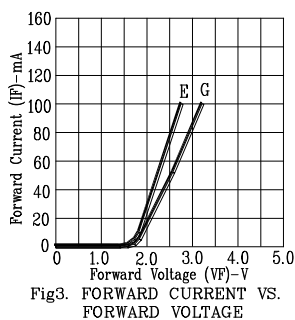
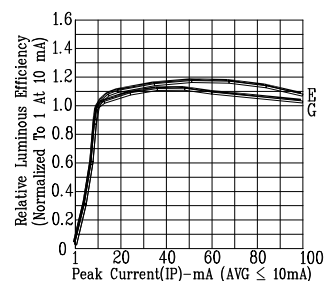
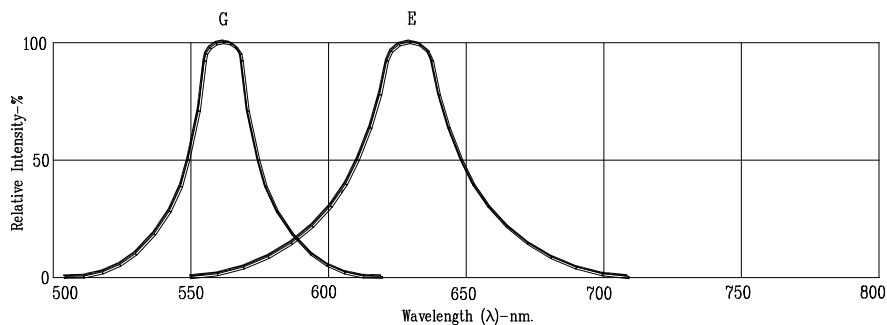
RED ORANGE

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1500	4000		μcd	I _p =80mA 1/16DUTY
Peak Emission Wavelength	λ _p		630		nm	I _F =20mA
Spectral Line Half-Width	Δλ		40		nm	I _F =20mA
Dominant Wavelength	λ _d		621		nm	I _F =20mA
Forward Voltage any Dot	V _F		2	2.6	V	I _F =20mA
			2.6	3.4	V	I _F =80mA
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)



NOTE: G=GREEN & E=RED ORANGE

Mouser Electronics

Authorized Distributor

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