



LED Display

Product Data Sheet

LTP-2088AG

Spec No.: DS-30-97-250

Effective Date: 04/19/2000

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

FEATURES

- * 2.3 inch (58.42 mm) MATRIX HEIGHT.
- * LOW POWER REQUIREMENT.
- * SINGLE PLANE, WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.
- * 8x8 ARRAY WITH X-Y SELECT.
- * COMPATIBLE WITH USASCII AND EBCDIC CODES.
- * STACKABLE HORIZONTALLY.
- * CATEGORIZED FOR LUMINOUS INTENSITY.

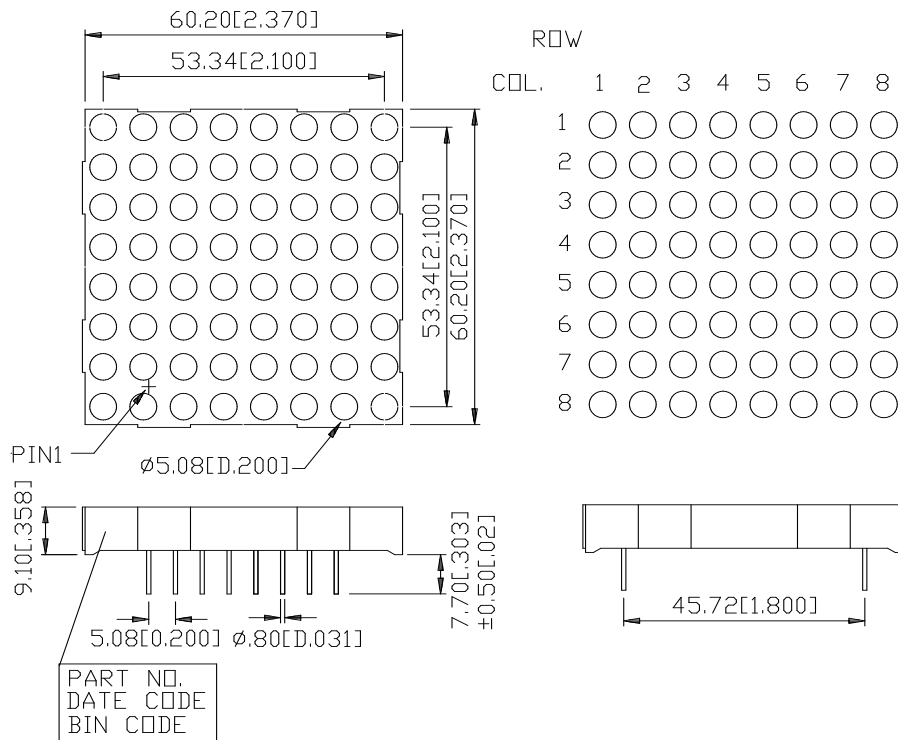
DESCRIPTION

The LTP-2088AG is a 2.3 inch (58.42 mm) matrix height 8x8 dot matrix displays. This device utilizes Green LED chips are made which from GaP on GaP substrate, with a gray face and white dot color.

DEVICE

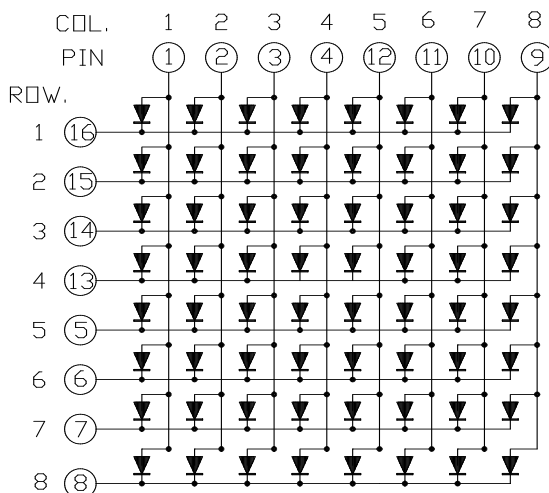
PART NO.	DESCRIPTION
Green	ANODE COLUMN
LTP-2088AG	CATHODE ROW

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	ANODE COLUMN 1
2	ANODE COLUMN 2
3	ANODE COLUMN 3
4	ANODE COLUMN 4
5	CATHODE ROW 5
6	CATHODE ROW 6
7	CATHODE ROW 7
8	CATHODE ROW 8
9	ANODE COLUMN 8
10	ANODE COLUMN 7
11	ANODE COLUMN 6
12	ANODE COLUMN 5
13	CATHODE ROW 4
14	CATHODE ROW 3
15	CATHODE ROW 2
16	CATHODE ROW 1

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	AlGaAs RED	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: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1780	4800		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
			3.0	3.7		I _F =80mA
Reverse Current any 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)

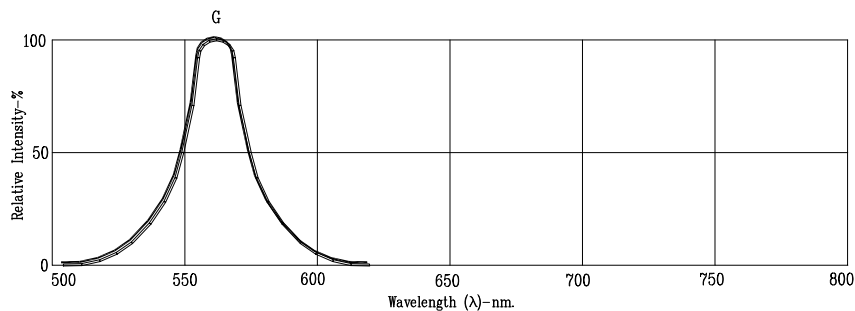


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

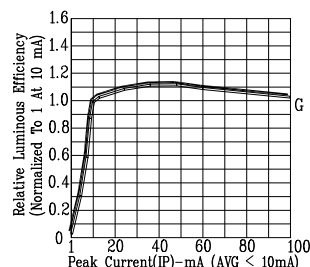


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

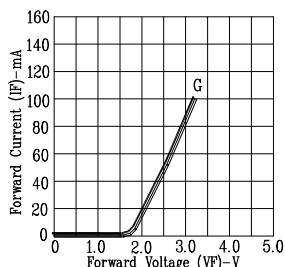


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

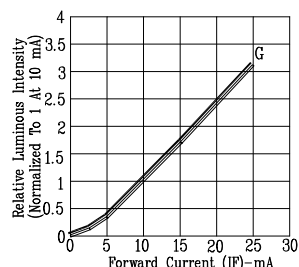


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

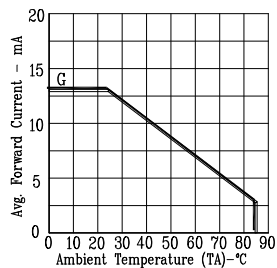


Fig5. MAX AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

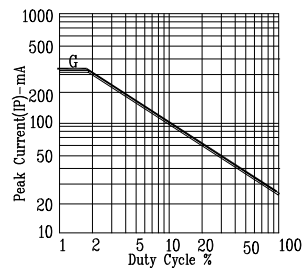


Fig6. MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN