

FEATURES

- * 0.764 inch (19.4 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

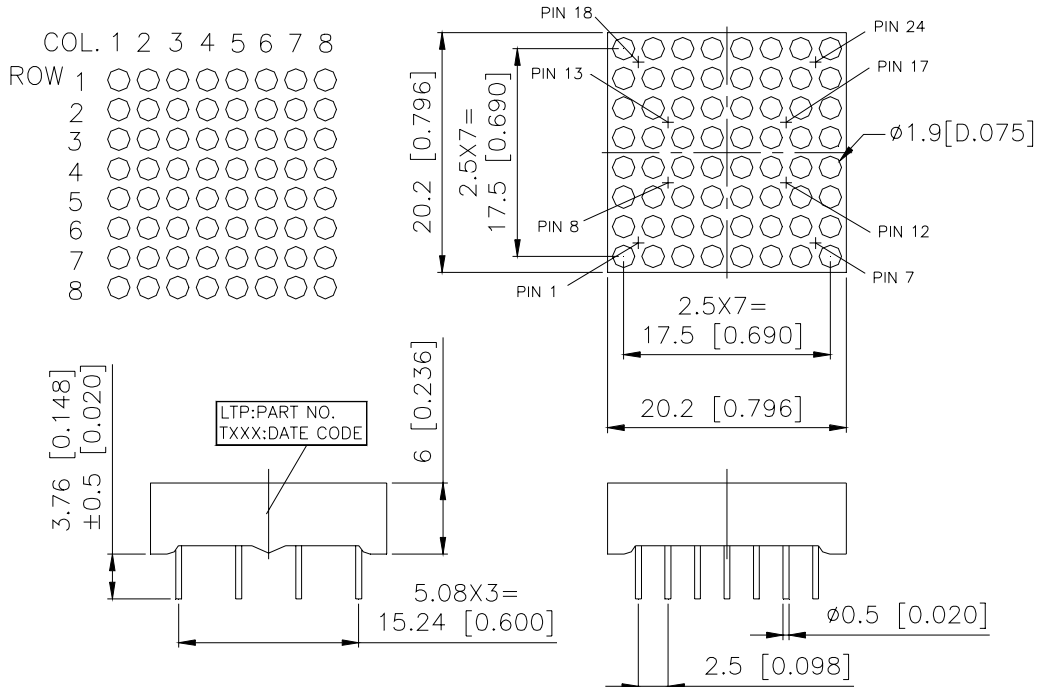
DESCRIPTION

The LTP-7388M is a 0.764 inch (19.4 mm) matrix height 8x8 dot matrix display. This device uses AS-AlInGaP green and AS-AlInGaP super red LED chips (AlInGaP epi on a GaAs substrate). The display has black face and white dots.

DEVICE

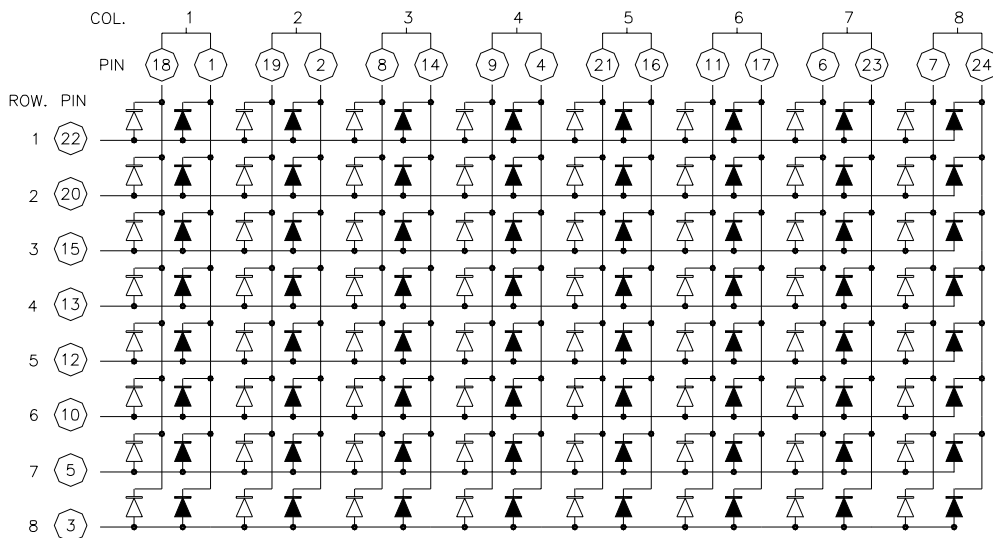
PART NO.	DESCRIPTION
MULTI-COLOR	Cathode Column
LTP-7388M	Anode Row

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



THE SIGN "▲" STANDS FOR RED COLOR.

THE SIGN "△" STANDS FOR GREEN COLOR.

PIN CONNECTION

No.	CONNECTION	No.	CONNECTION
1	CATHODE COLUMN 1 RED	13	ANODE ROW 4
2	CATHODE COLUMN 2 RED	14	CATHODE COLUMN 3 RED
3	ANODE ROW 8	15	ANODE ROW 3
4	CATHODE COLUMN 4 RED	16	CATHODE COLUMN 5 RED
5	ANODE ROW 7	17	CATHODE COLUMN 6 RED
6	CATHODE COLUMN 7 GREEN	18	CATHODE COLUMN 1 GREEN
7	CATHODE COLUMN 8 GREEN	19	CATHODE COLUMN 2 GREEN
8	CATHODE COLUMN 3 GREEN	20	ANODE ROW 2
9	CATHODE COLUMN 4 GREEN	21	CATHODE COLUMN 5 GREEN
10	ANODE ROW 6	22	ANODE ROW 1
11	CATHODE COLUMN 6 GREEN	23	CATHODE COLUMN 7 RED
12	ANODE ROW 5	24	CATHODE COLUMN 8 RED

ABSOLUTE MAXIMUM RATING

PARAMETER	AlInGaP GREEN	AlInGaP SUPER RED	UNIT
Average Power Dissipation Per Dot	70	70	mW
Peak Forward Current Per Dot (Frequency 1Khz, 10% duty cycle)	60	90	mA
Average Forward Current Per Dot	25	25	mA
Forward Current Derating from 25 ⁰ C	0.33		mA/ ⁰ C
Reverse Voltage Per Segment	5		V
Operating Temperature Range	-35 ⁰ C to +85 ⁰ C		
Storage Temperature Range	-35 ⁰ C to +85 ⁰ C		
Soldering Conditions : 1/16 inch below seating plane for 3 seconds at 260 ⁰ C			

ELECTRICAL / OPTICAL CHARACTERISTICS

AlInGaP GREEN

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity per Dot	I _v	4300	6200		ucd	I _p =48mA
Average Luminous Intensity		674	972		cd/m ²	1/16Duty
Peak Emission Wavelength	λ _p		571		nm	I _F =20mA
Spectral Line Half-Width	Δλ		15		nm	I _F =20mA
Dominant Wavelength	λ _d		572		nm	I _F =20mA
Forward Voltage any Dot	V _F		2.1	2.6	V	I _F =20mA
Reverse Current any Dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =3mA

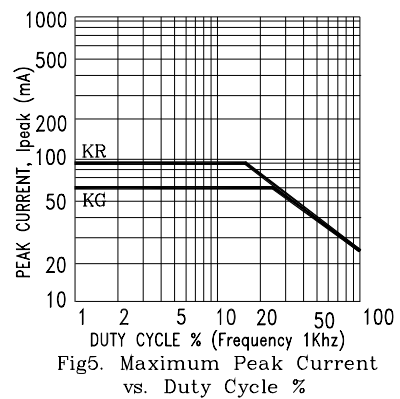
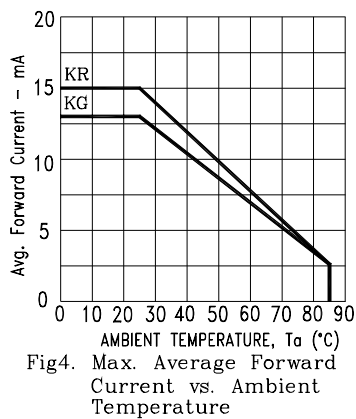
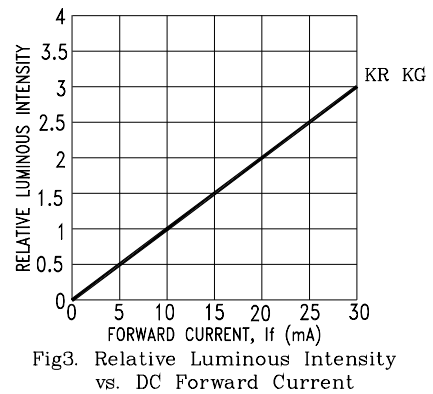
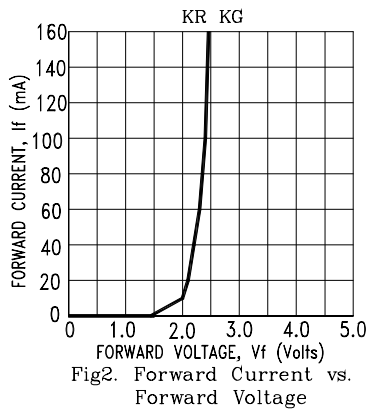
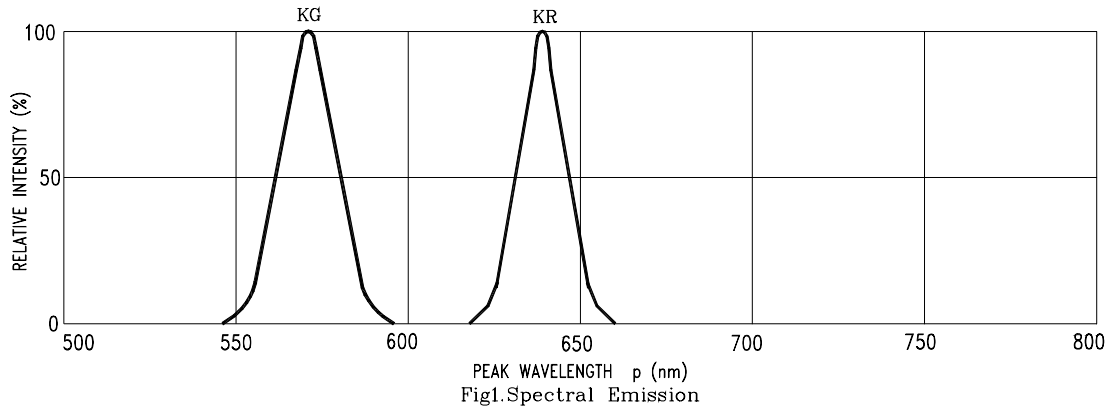
ELECTRICAL / OPTICAL CHARACTERISTICS

AlInGaP SUPER RED

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity per Dot	I _v	2100	4000		ucd	I _p =48mA
Average Luminous Intensity		329	627		cd/m ²	1/16Duty
Peak Emission Wavelength	λ _p		639		nm	I _F =20mA
Spectral Line Half-Width	Δλ		20		nm	I _F =20mA
Dominant Wavelength	λ _d		631		nm	I _F =20mA
Forward Voltage any Dot	V _F		2.0	2.6	V	I _F =20mA
Reverse Current any Dot	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _v -m			2:1		I _F =3mA

Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commission International De L'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES



NOTE: KR=AlInGaP SUPER RED KG=AlInGaP GREEN