FEATURES

* 0.7INCH (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.

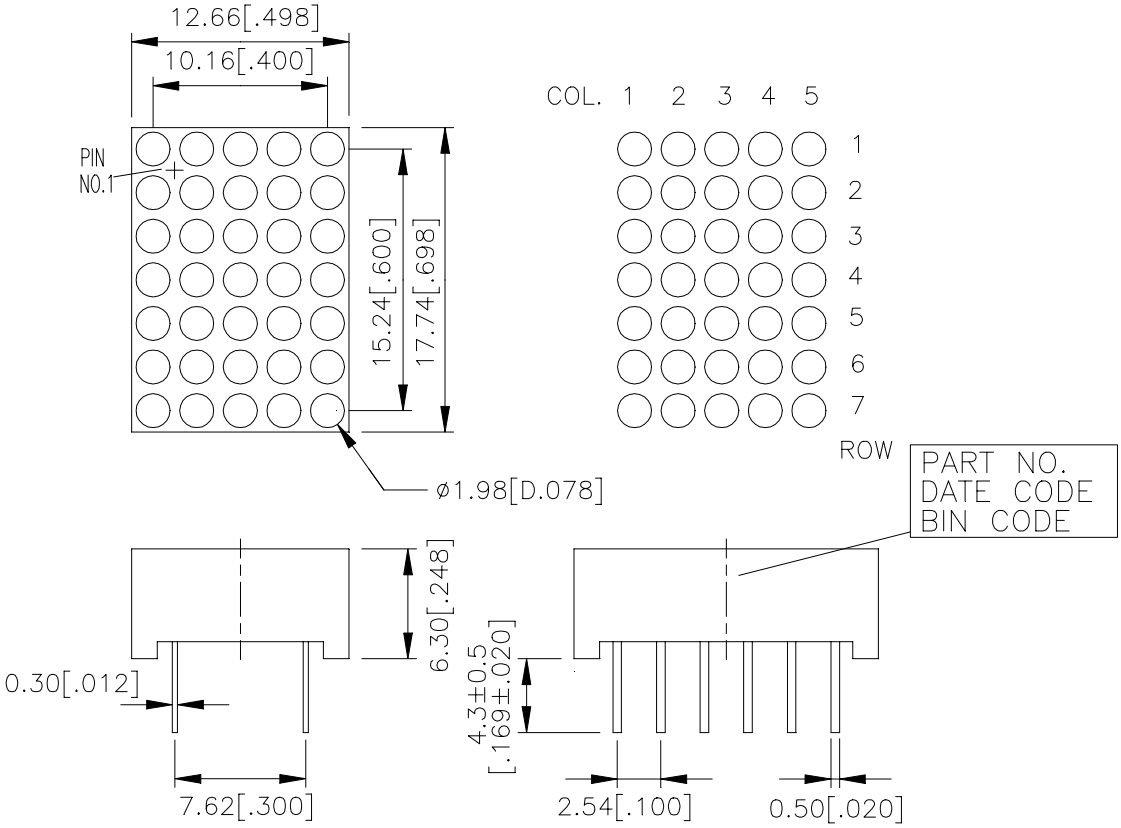
DESCRIPTION

The LTP-747KY is a 0.7inch (17.22mm) matrix height 5 x 7 dot matrix display. This device utilizes AlInGap Amber Yellow LED chips, which are made from AlInGaP on a non-transparent GaAs substrate, and has a gray face and white dots.

DEVICE

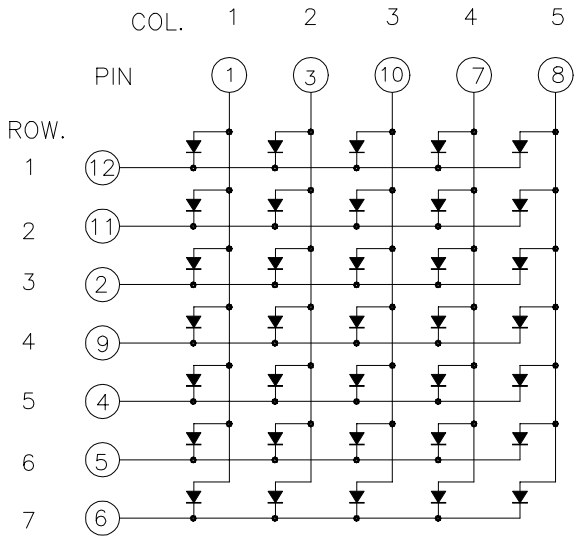
PART NO.	DESCRIPTION
AlInGaP AMBER YELLOW	Anode Column
LTP-747KY	Cathode Row

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

ABSOLUTE MAXIMUM RATING AT T_A=25°C

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per dot	25	mW
Peak Forward Current Per dot	60	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	1650	3400		μcd	I_P=32mA , 1/16Duty
Peak Emission Wavelength	λp		595		nm	I_F=20mA
Spectral Line Half-Width	Δλ		15		nm	I_F=20mA
Dominant Wavelength	λd		592		nm	I_F=20mA
Forward Voltage Per dot	V_F		2.05	2.6	V	I_F=20mA
Reverse Current Per dot	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ratio	I_{V-m}			2:1		I_P=32mA , 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)

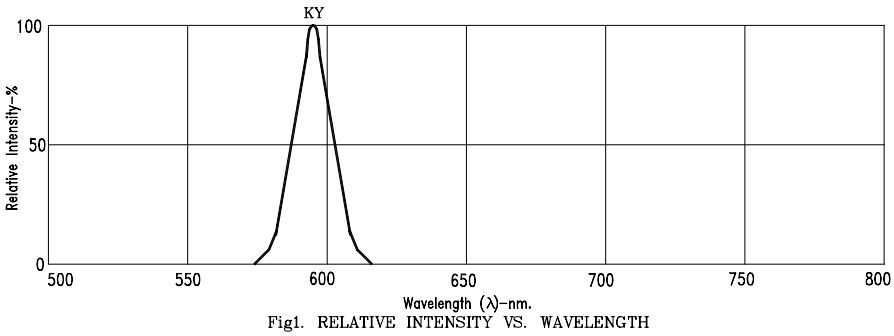


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

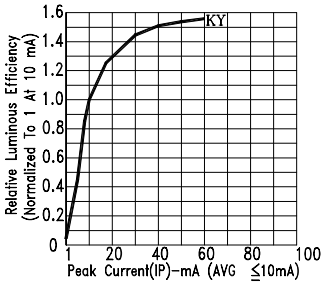


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT

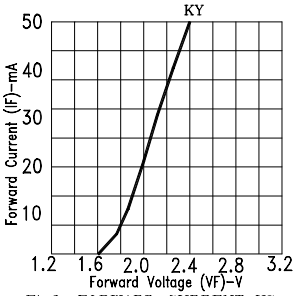


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

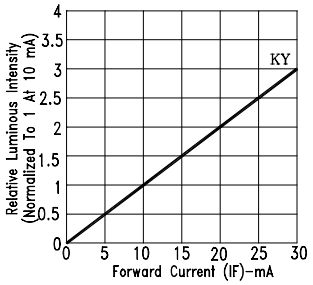


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

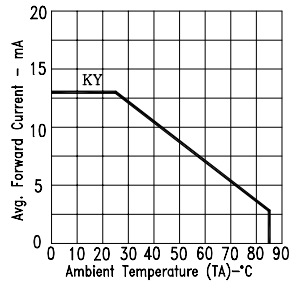


Fig5. MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE.

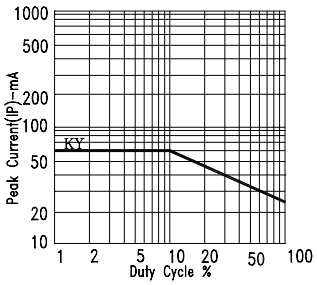


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: KY=AlInGaP AMBER YELLOW