

## **FEATURES**

- \* 2.0 inch (50.8 mm) MATRIX HEIGHT
- \* LOW POWER REQUIREMENT
- \* EXCELLENT CHARACTERS APPEARANCE
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* 5×7 ARRAY WITH X-Y SELECT
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* SOLID STATE RELIABILITY

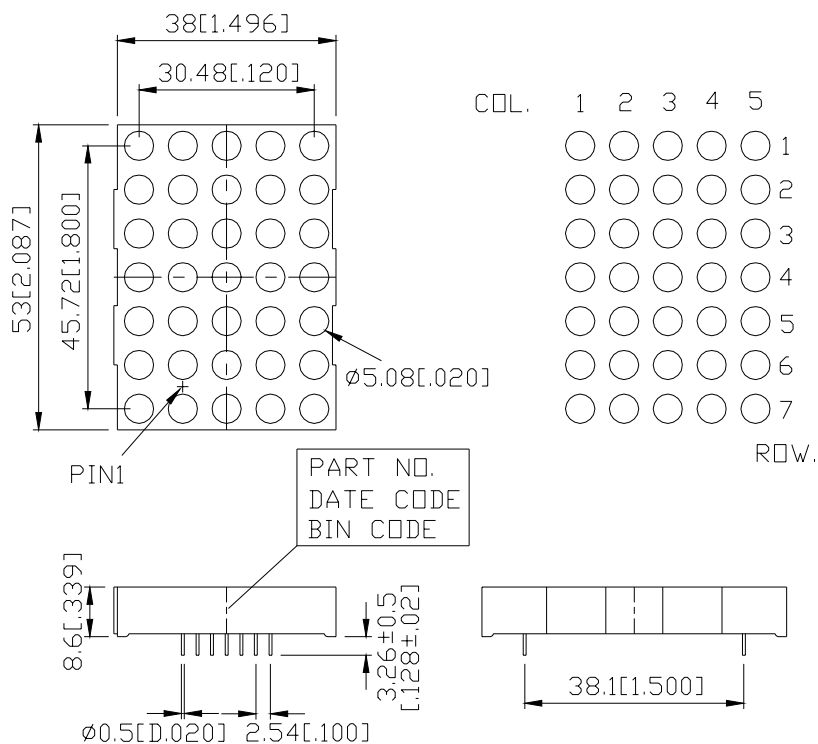
## **DESCRIPTION**

The LTP-2157AKY-01 is a 2.0 inch (50.8 mm) matrix height 5×7 dot matrix display. This device uses AS-AlInGaP AMBER YELLOW LED chips (AlInGaP epi on GaAs substrate). The display has a black face and white dot color.

## **DEVICE**

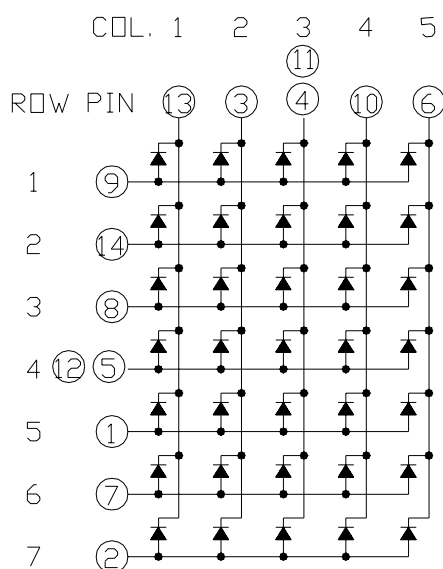
<b>PART NO.</b>	<b>DESCRIPTION</b>
AlInGaP AMBER YELLOW	Cathode Column
LTP-2157AKY-01	Anode Row

## PACKAGE DIMENSIONS



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

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	ANODE ROW 5
2	ANODE ROW 7
3	CATHODE COLUMN 2
4	CATHODE COLUMN 3
5	ANODE ROW 4
6	CATHODE COLUMN 5
7	ANODE ROW 6
8	ANODE ROW 3
9	ANODE ROW 1
10	CATHODE COLUMN 4
11	CATHODE COLUMN 3
12	ANODE ROW 4
13	CATHODE COLUMN 1
14	ANODE ROW 2

## ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per Dot	35	mW
Peak Forward Current Per Dot ( Frequency 1Khz, 25% duty cycle )	60	mA
Average Forward Current Per Dot	13	mA
Forward Current From 25	0.17	mA/
Reverse Voltage Per Dot	5	V
Operating Temperature Range	-35 to +85	
Storage Temperature Range	-35 to +85	
Soldering Conditions:1/16 inch below seating plane for 3 seconds at 260		

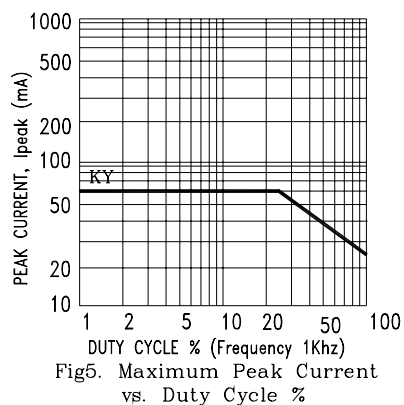
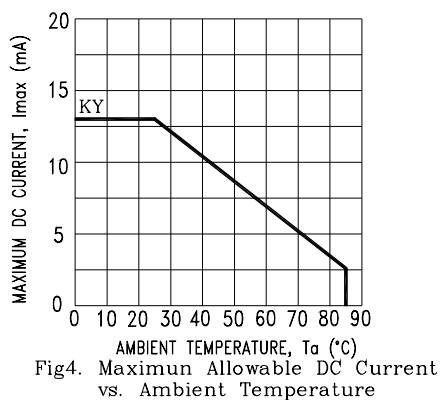
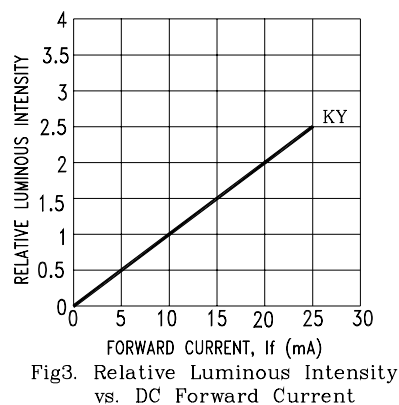
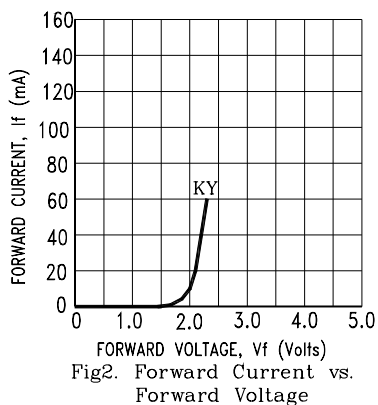
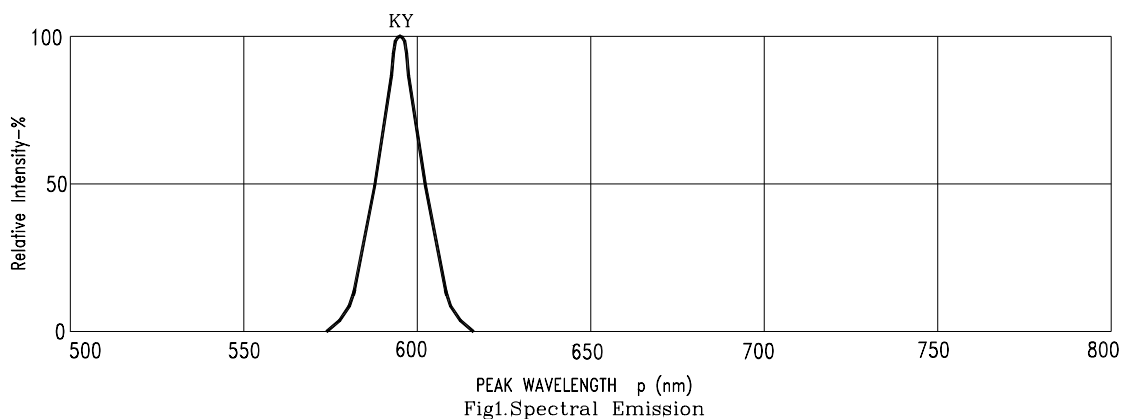
## ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Dot	I <sub>v</sub>	1650	3600		μcd	I <sub>p</sub> = 32mA 1/16Duty
Peak Emission Wavelength	λ <sub>p</sub>		595		nm	I <sub>F</sub> = 20mA
Spectral Line Half-Width	Δλ		15		nm	I <sub>F</sub> = 20mA
Dominant Wavelength	λ <sub>d</sub>		592		nm	I <sub>F</sub> = 20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.05	2.6	V	I <sub>F</sub> = 20mA
			2.3	2.8		I <sub>F</sub> = 80mA
Reverse Current any Dot	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5V
Luminous Intensity Matching Ratio	I <sub>v-m</sub>			2:1		I <sub>p</sub> = 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)



NOTE: KY= AlInGaP AMBER YELLOW