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
- ＊**LEAD-FREE PACKAGE**

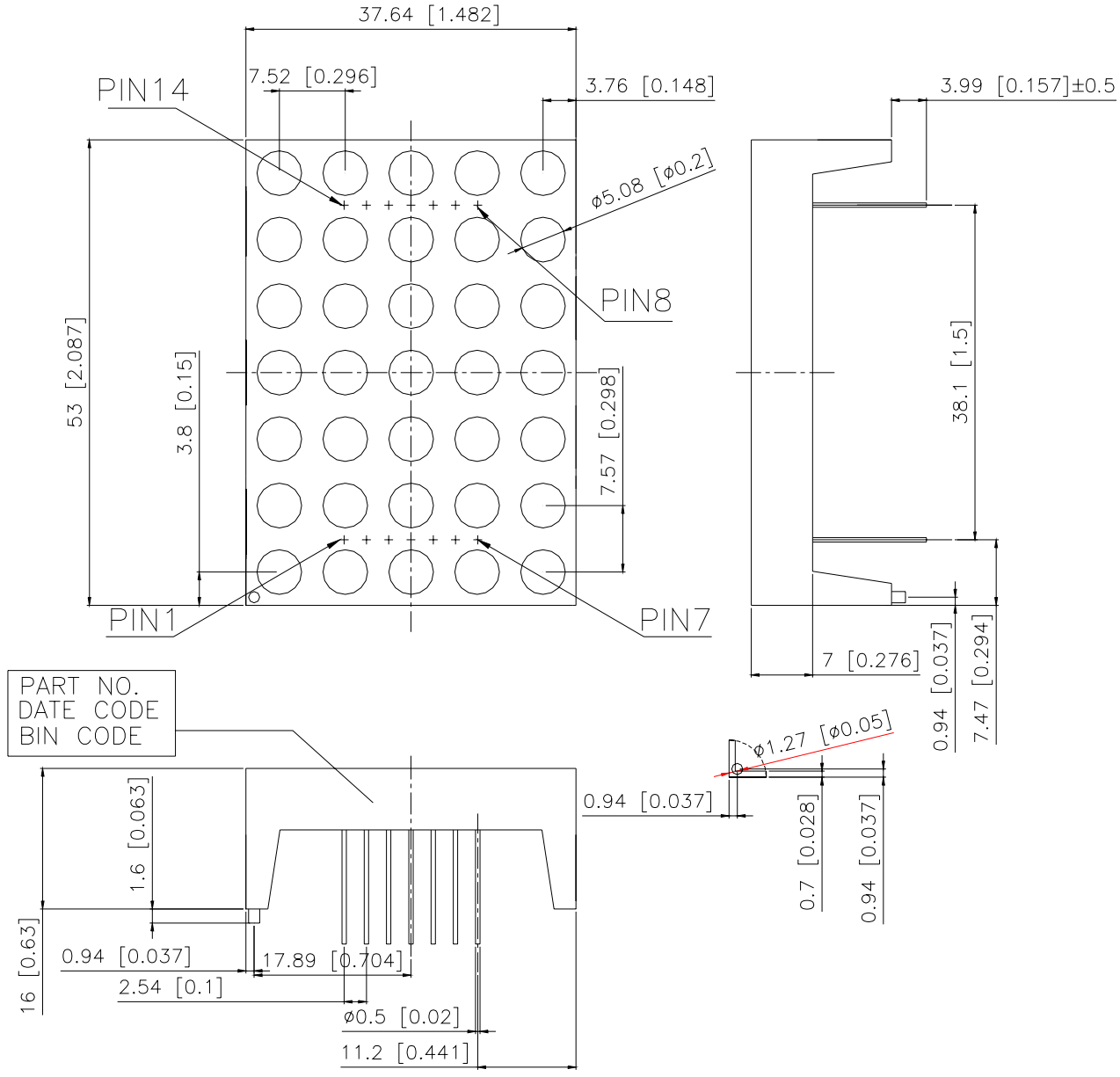
DESCRIPTION

The LTP-20357KY is a 2.0 inch (50.8 mm) matrix height 5×7 dot matrix display. This device uses AlInGaP Amber yellow LED chips(AlInGaP epi on GaAs substrate). The display has gray face and yellow dot color.

DEVICE

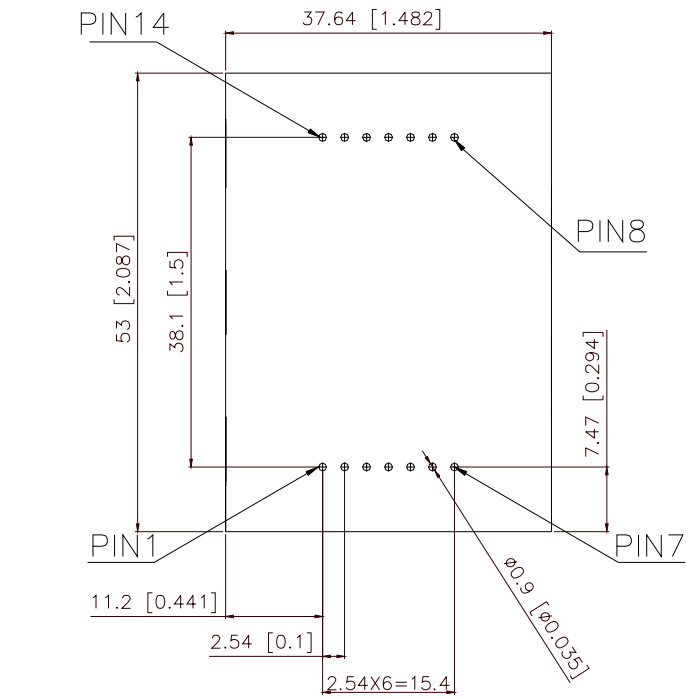
PART NO.	DESCRIPTION
AlInGaP Amber Yellow	CATHODE COLUMN
LTP-20357KY	ANODE ROW

PACKAGE DIMENSIONS

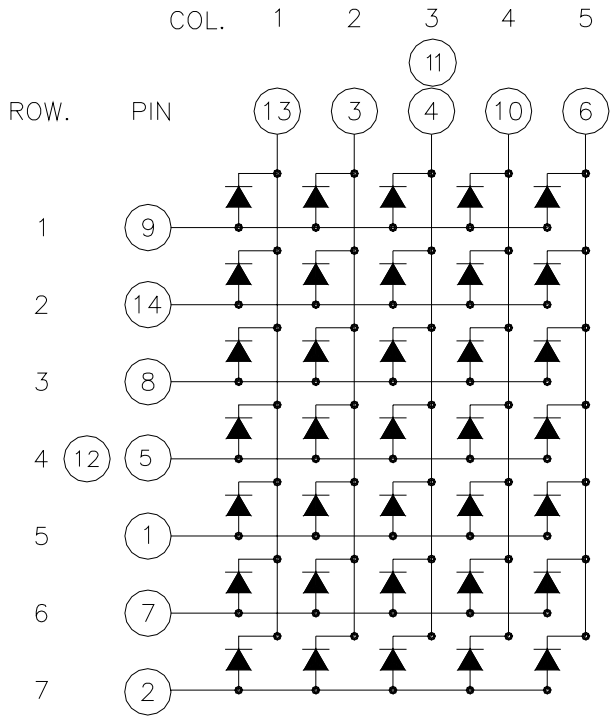


NOTES: All dimensions are in millimeters. Tolerance is ± 0.25 mm (0.01“) unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM



PCB LAYOUT PATTERN (FOR REFERENCE)



The sign "→|" stands for AlInGaP Amber-yellow color chips

PIN CONNECTION

No.	CONNECTION
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 Forward Current Derating from 25^0C	25 0.33	mA 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 260^0C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25^oC

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	2100	3600		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 Segment	V_F		2.05	2.6	V	I_F=20mA
			2.3	2.8		I_F=80mA
Reverse Current any Dot	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ratio (Similar Light Area)	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)

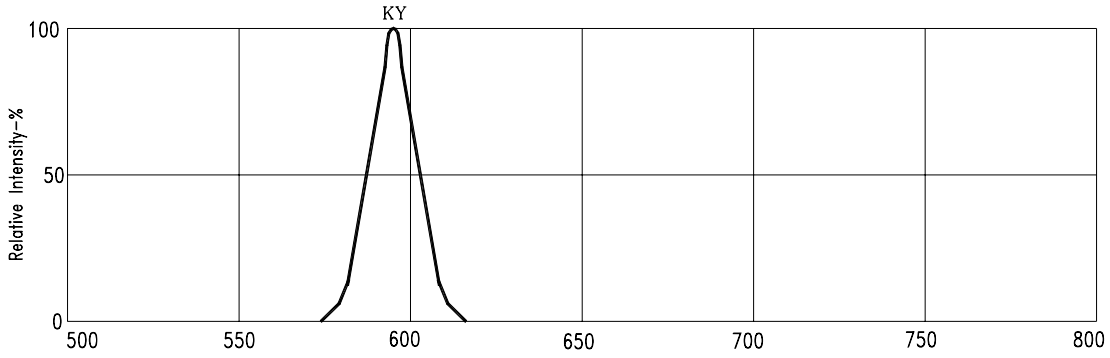


Fig1.Spectral Emission

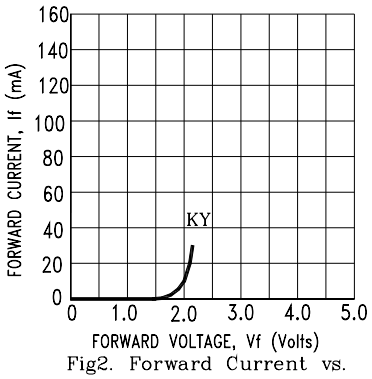


Fig2. Forward Current vs. Forward Voltage

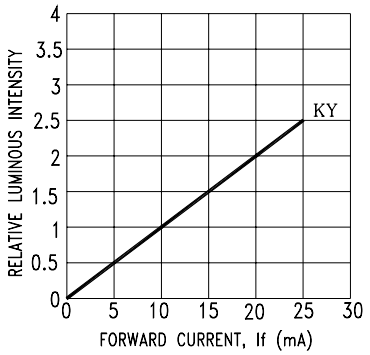


Fig3. Relative Luminous Intensity vs. DC Forward Current

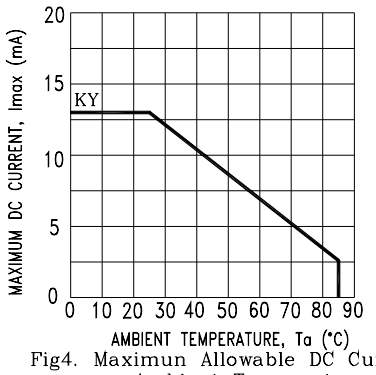


Fig4. Maximun Allowable DC Current vs. Ambient Temperature

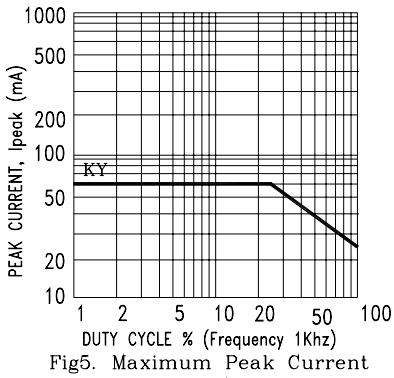


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE: KY=AlInGaP AMBER YELLOW