

FEATURES

- * 1.38 inch (35.00 mm) MATRIX HEIGHT.
- * LOW POWER REQUIREMENT.
- * SINGLE PLANE, WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.
- * 5× 7 ARRAY WITH X-Y SELECT.
- * COMPATIBLE WITH USASCII AND EBCDIC CODES.
- * STACKABLE HORIZONTALLY.

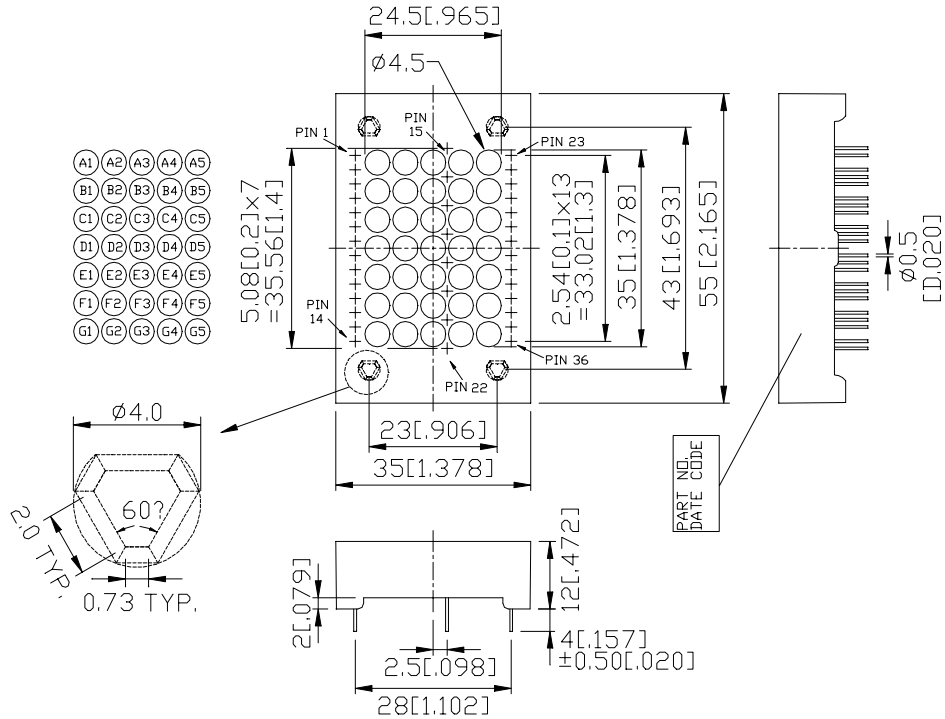
DESCRIPTION

The LTP-13A57C is a 1.38 inch (35.00 mm) matrix height 5× 7 dot matrix display. This device utilizes AlGaAs red LED chips, which are made from AlGaAs on a non-transparent GaAs substrate, and has a gray face and white dot color.

DEVICE

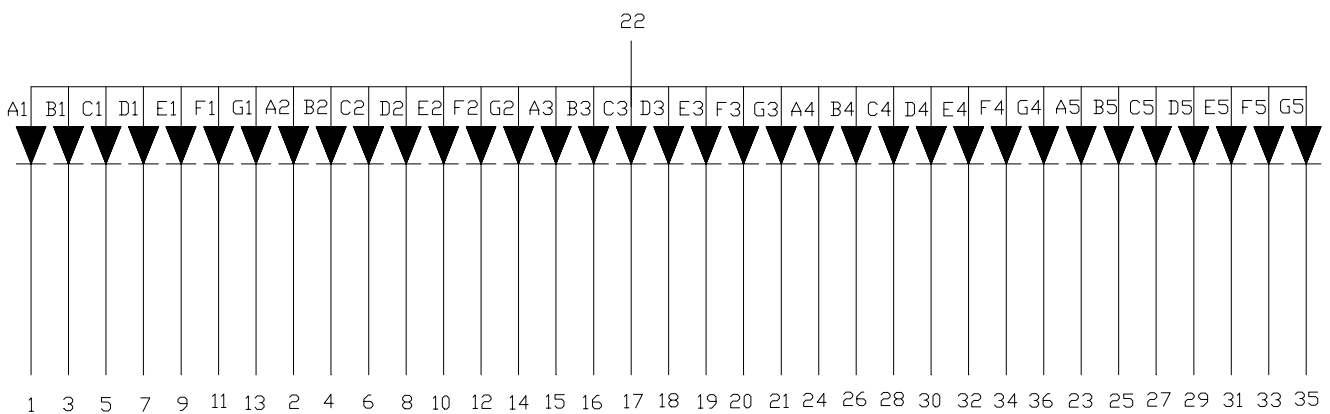
PART NO.	DESCRIPTION
AlGaAs RED	Common Anode
LTP-13A57C	

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	No.	CONNECTION
1	CATHODE A1	19	CATHODE E3
2	CATHODE A2	20	CATHODE F3
3	CATHODE B1	21	CATHODE G3
4	CATHODE B2	22	COMMON ANODE
5	CATHODE C1	23	CATHODE A5
6	CATHODE C2	24	CATHODE A4
7	CATHODE D1	25	CATHODE B5
8	CATHODE D2	26	CATHODE B4
9	CATHODE E1	27	CATHODE C5
10	CATHODE E2	28	CATHODE C4
11	CATHODE F1	29	CATHODE D5
12	CATHODE F2	30	CATHODE D4
13	CATHODE G1	31	CATHODE E5
14	CATHODE G2	32	CATHODE E4
15	CATHODE A3	33	CATHODE F5
16	CATHODE B3	34	CATHODE F4
17	CATHODE C3	35	CATHODE G5
18	CATHODE D3	36	CATHODE G4

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Average Power Dissipation Per Dot	36	mW
Peak Forward Current Per Dot	125	mA
Average Forward Current Per Dot	15	mA
Derating Linear From 25°C Per Dot	0.20	mA/°C
Reverse Voltage Per Segment	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	5100	12000		μcd	I _p =80mA 1/16Duty
Peak Emission Wavelength	λ _p		660		nm	I _F =20mA
Spectral Line Half-Width	Δλ		35		nm	I _F =20mA
Dominant Wavelength	λ _d		638		nm	I _F =20mA
Forward Voltage any Dot	V _F		1.8	2.4	V	I _F =20mA
			2.0	3.1		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)

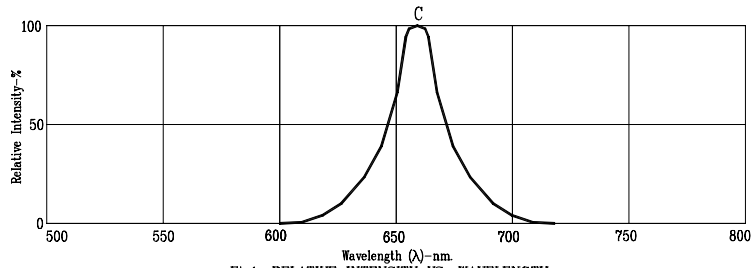


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

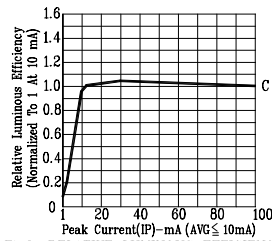


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

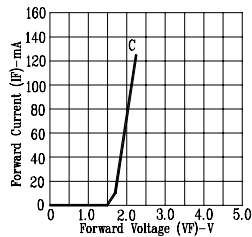


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

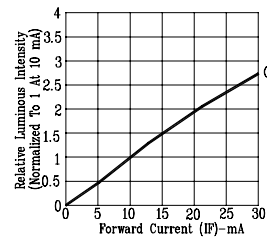


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

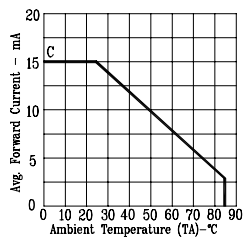


Fig5. MAX. AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE.

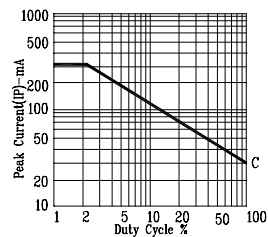


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE : C=AIGaAs RED