

**FEATURES**

- \* 0.8 inch (20.32 mm) 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
- \* **LEAD-FREE PACKAGE**

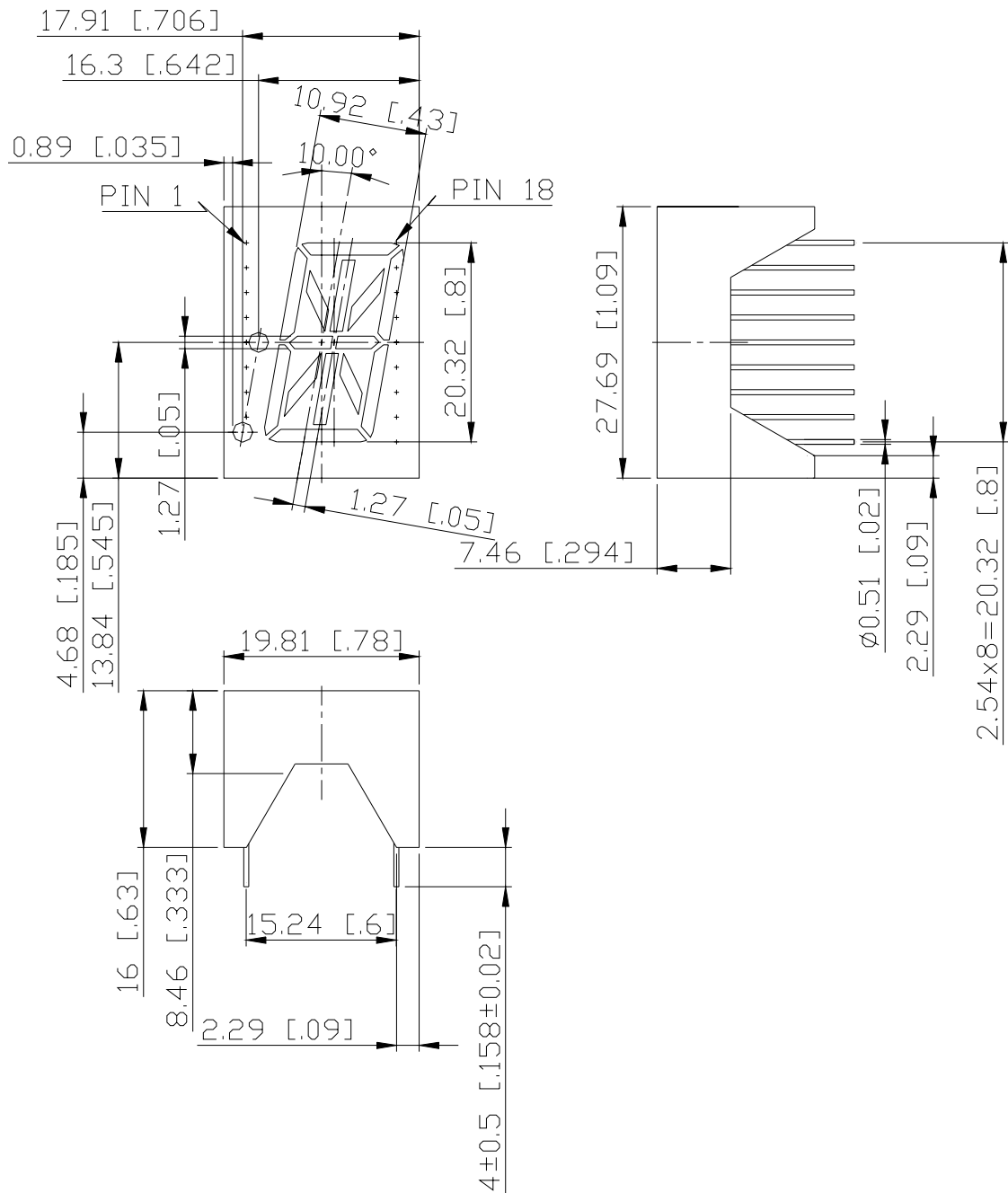
**DESCRIPTION**

The LTP-8302KY is a 0.8 inch (20.32 mm) height 16-segment single digit alphanumeric display. This device uses AlInGaP Amber yellow LED chips (AlInGaP epi on GaAs substrate). The display has gray face and yellow segments.

**DEVICE**

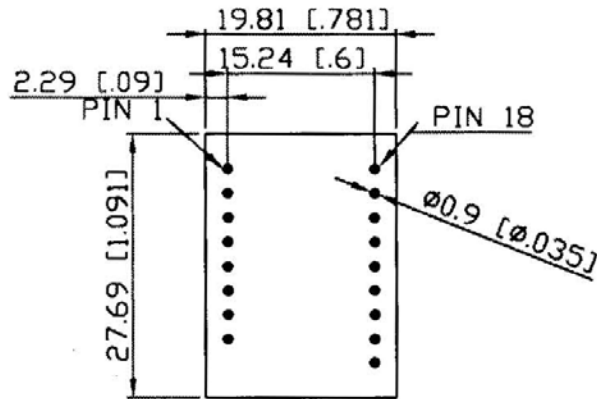
<b>PART NO.</b>	<b>DESCRIPTION</b>
AllInGaP Amber Yellow	Common Cathode
LTP-8302KY	

## PACKAGE DIMENSIONS

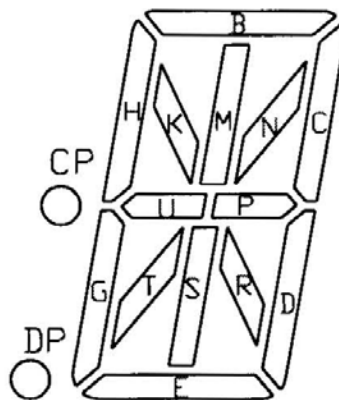


NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm (0.01") unless otherwise noted.

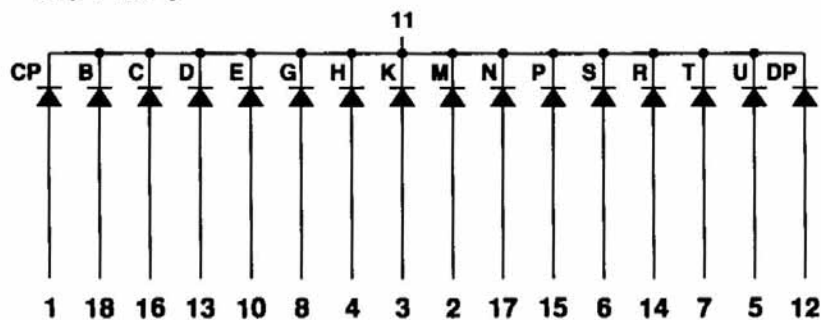
## INTERNAL CIRCUIT DIAGRAM



PCB LAYOUT PATTERN (FOR REFERENCE)



**NO PIN: 9**



The sign  $\leftarrow \blacktriangle$  stands for AllnGaP Amber-yellow color chips

**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	ANODE CP
2	ANODE M
3	ANODE K
4	ANODE H
5	ANODE U
6	ANODE S
7	ANODE T
8	ANODE G
9	NC
10	ANODE E
11	COMMON CATHODE
12	ANODE DP
13	ANODE D
14	ANODE R
15	ANODE P
16	ANODE C
17	ANODE N
18	ANODE B

**ABSOLUTE MAXIMUM RATING**

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment ( Frequency 1Khz, 25% duty cycle)	60	mA
Continuous Forward Current Per Segment	25	mA
Forward Current Derating from 25 <sup>0</sup> C	0.33	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	
Soldering Conditions : 1/16 inch below seating plane for 3 seconds at 260 <sup>0</sup> C		

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	320	1077		μcd	I <sub>F</sub> =1mA
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
Reverse Current Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I <sub>v</sub> -m			2:1		I <sub>F</sub> =1mA

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)

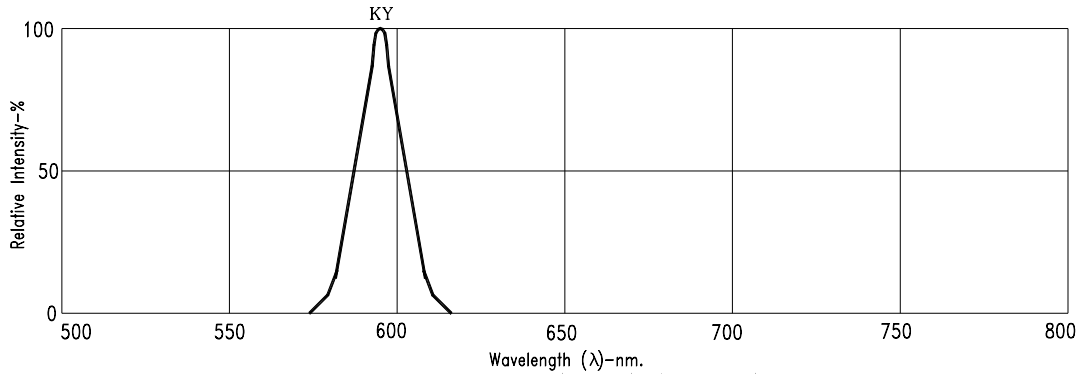


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

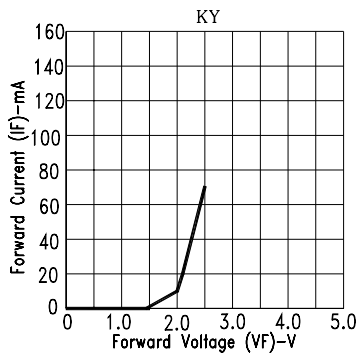


Fig2. FORWARD CURRENT VS. FORWARD VOLTAGE

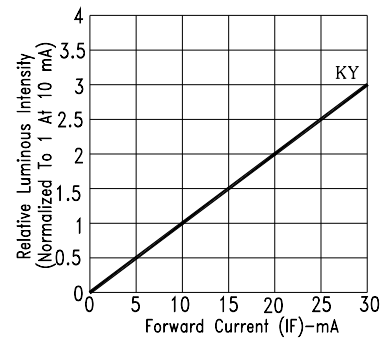


Fig3. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

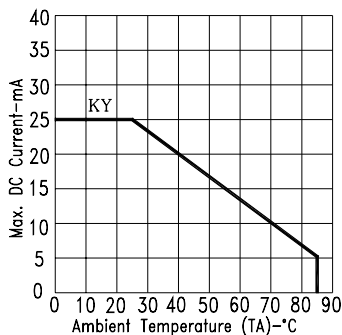


Fig4. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

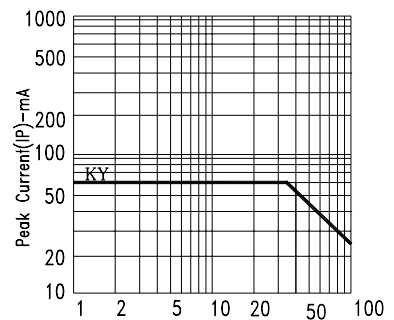


Fig5. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE : KY=AlInGaP Amber YELLOW