

LED DISPLAY**LTC-4727E-22**
DATASHEET

<u>Rev</u>	<u>Description</u>	<u>By</u>
-	UPDATED VERSION	<u>WARIN</u>

SPEC. NO.: DS30-2007-0164DATE : 07/31/07REV. NO. : -PAGE NO. : 1 OF 6

FEATURES

- *0.4 inch (10 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.

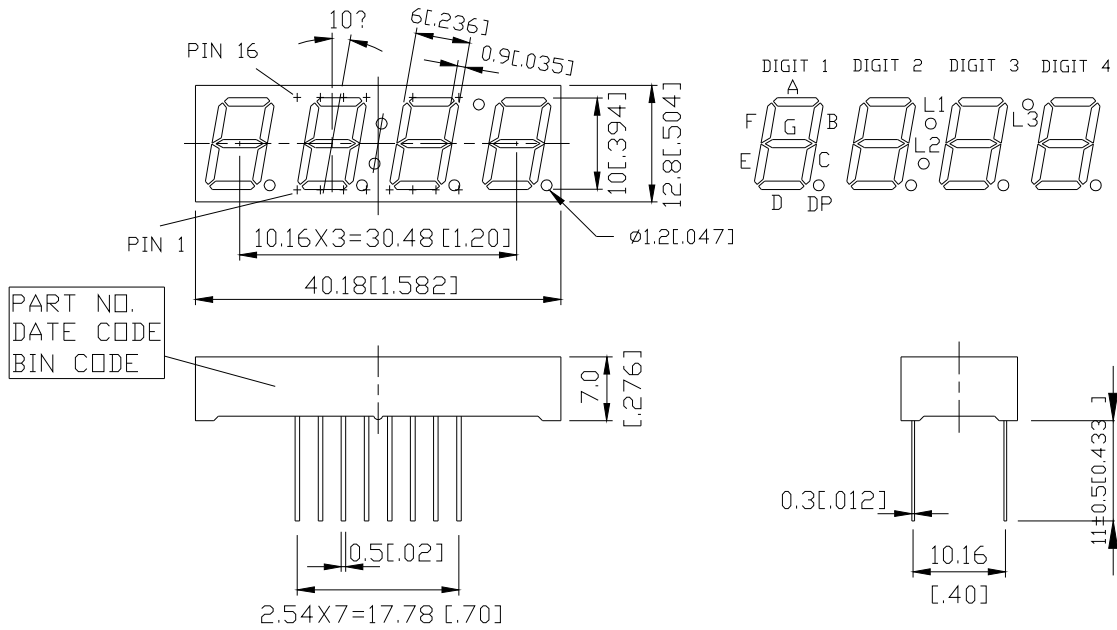
DESCRIPTION

The LTC-4727E-22 is a 0.4 inch (10 mm) digit height quadruple digit seven-segment display. This device utilizes orange LED chips, which are made from GaAsP on a transparent GaP substrate, and has a gray face and white segments.

DEVICE

PART NO.	DESCRIPTION
ORANGE	MULTIPLEX COMMON CATHODE
LTC-4727E-22	RT. HAND DECIMAL

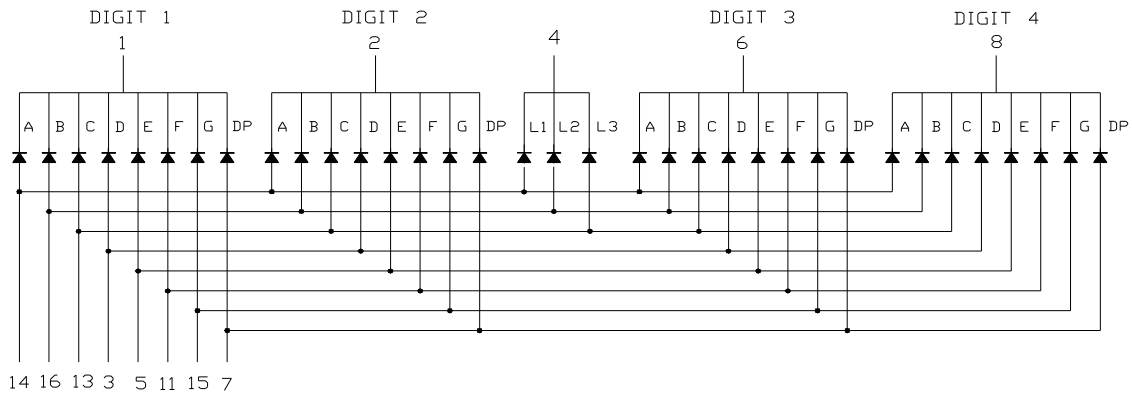
PACKAGE DIMENSIONS



NOTES: 1. All dimensions are in millimeters(inches). Tolerance : ± 0.25 mm (0.01") unless otherwise noted.

2. Pin tip's shift tolerance are: ± 0.40 mm

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No.	CONNECTION
1	COMMON CATHODE DIGIT 1
2	COMMON CATHODE DIGIT 2
3	ANODE D
4	COMMON CATHODE L1, L2, L3
5	ANODE E
6	COMMON CATHODE DIGIT 3
7	ANODE D.P.
8	COMMON CATHODE DIGIT 4
9	NO CONNECTION
10	NO PIN
11	ANODE F
12	NO PIN
13	ANODE C, L3
14	ANODE A, L1
15	ANODE G
16	ANODE B, L2

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25°C Per Segment	0.33	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane or temperature of unit (during assembly) not over max temperature above rating		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	800	2200		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		630		nm	I _F =20mA
Spectral Line Half-Width	Δλ		40		nm	I _F =20mA
Dominant Wavelength	λ _d		621		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.0	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio (Similar Light Area)	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)

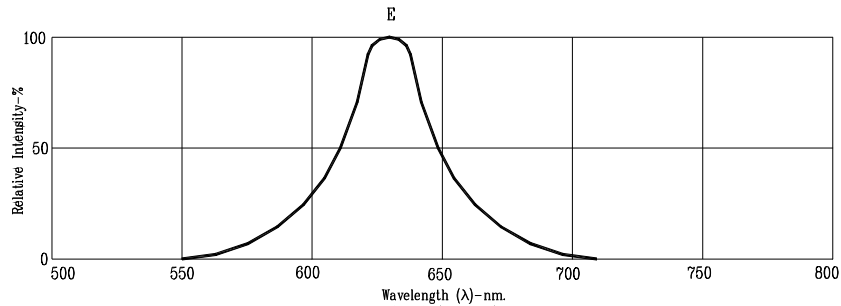


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

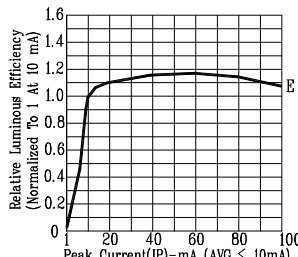


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

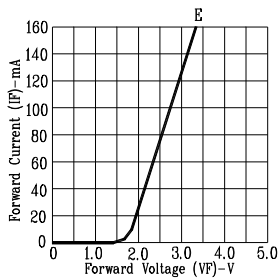


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

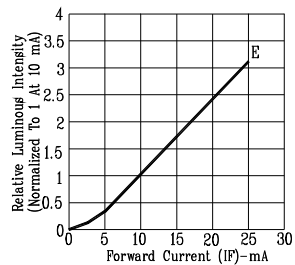


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

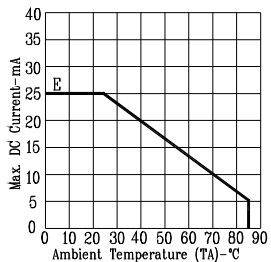


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

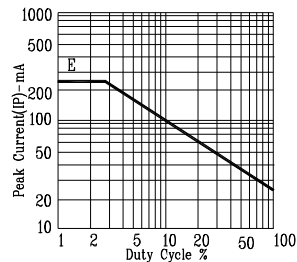


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: E=RED ORANGE