

**FEATURES**

- \* 0.4 inch (10.0 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.

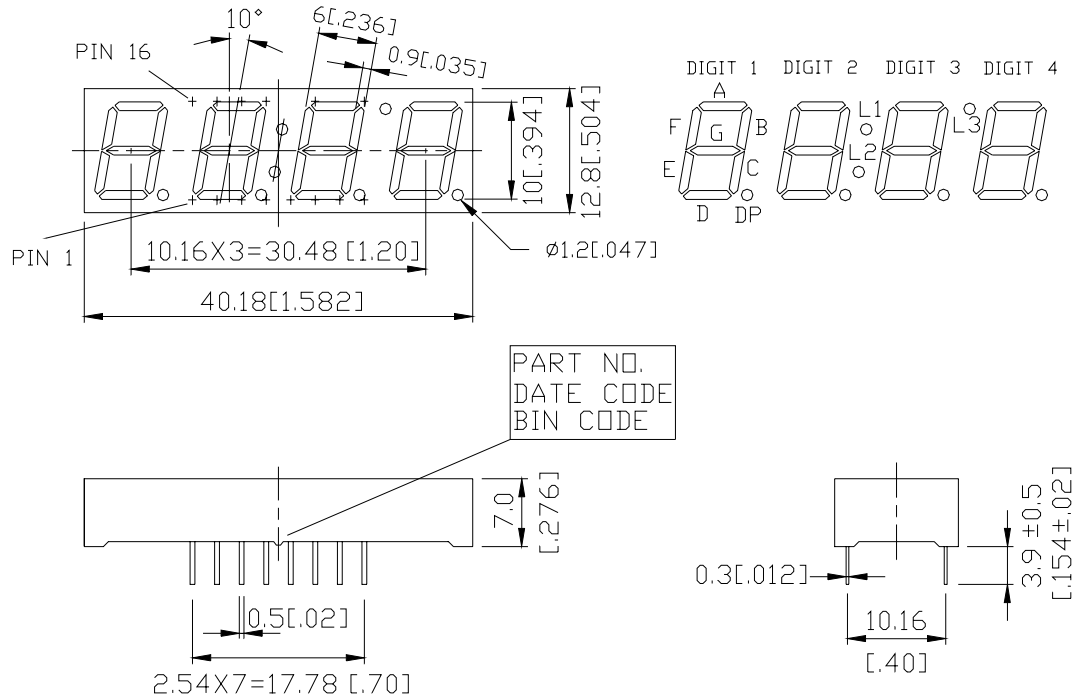
**DESCRIPTION**

The LTC-4627WC-20 is a 0.4 inch (10.0 mm) digit height quadruple digit seven-segment display. This device uses AlGaAs RED LED chips ( AlGaAs epi on GaAs substrate). The display has gray face and white segments.

**DEVICE**

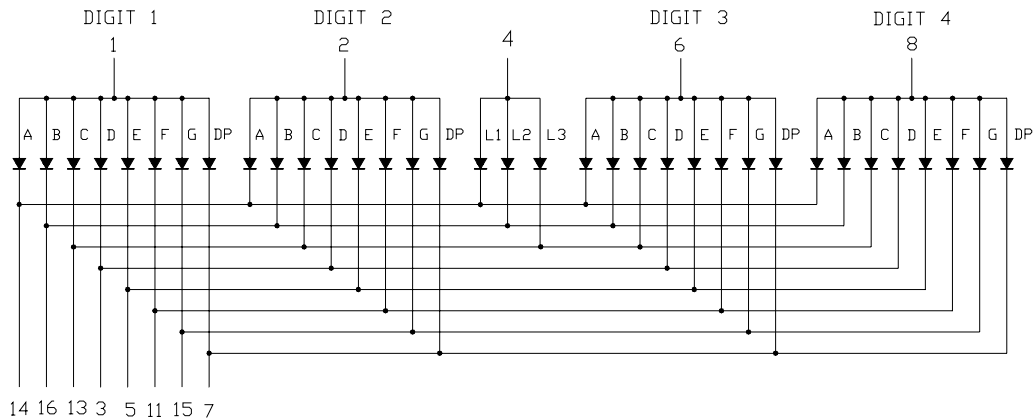
<b>PART NO.</b>	<b>DESCRIPTION</b>
AlGaAs RED	Multiplex Common Anode
LTC-4627WC-20	Rt. Hand Decimal

## PACKAGE DIMENSIONS



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

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

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

## ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (Frequency 1Khz,10% duty cycle)	125*	mA
Continuous Forward Current Per Segment	30	mA
Forward Current Derating from 25 <sup>0</sup> C	0.4	mA/
Reverse Voltage Per Segment	8	V
Operating Temperature Range	-35 to +85	
Storage Temperature Range	-35 to +85	
Soldering Conditions: 1/16 inch below eating plane for 3 seconds at 260 <sup>0</sup> C		

\*See figure 5 to establish pulsed condition

## ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25<sup>0</sup>C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	200	650		μcd	I <sub>F</sub> =1mA
			3400		μcd	I <sub>F</sub> =5mA
Peak Emission Wavelength	λ <sub>p</sub>		660		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		35		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		638		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		1.6	2.4	V	I <sub>F</sub> =1mA
			1.7			I <sub>F</sub> =5mA
			1.8			I <sub>F</sub> =20mA
Reverse Current Per Segment	I <sub>R</sub>			2	μA	V <sub>R</sub> =8V
Luminous Intensity Matching Ratio	I <sub>v</sub> -m			2:1		I <sub>F</sub> =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.

(V<sub>R</sub>=8V, I<sub>R</sub>=2μA is based on basic load)

### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

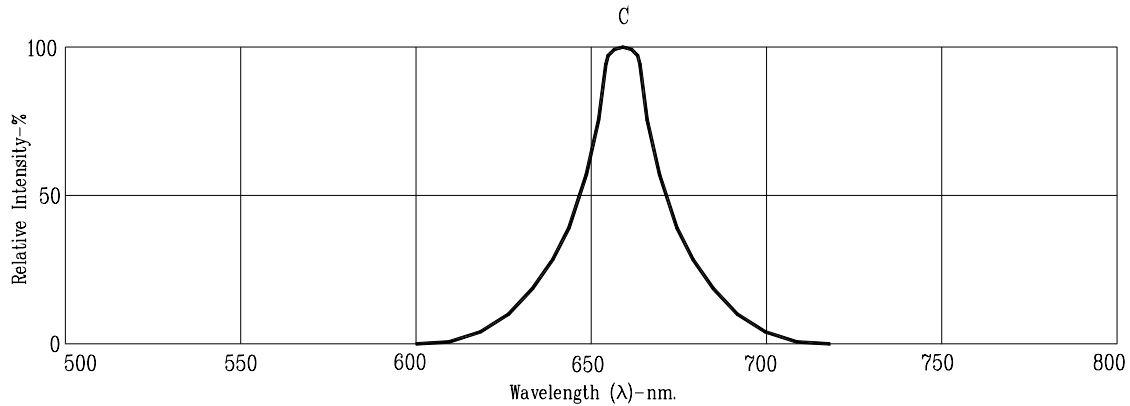


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

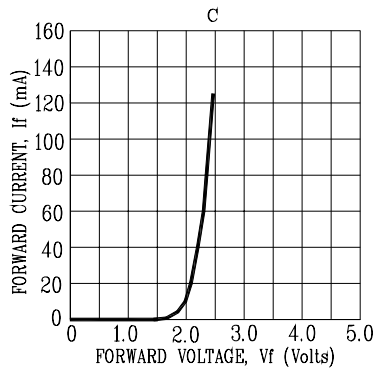


Fig2. Forward Current vs. Forward Voltage

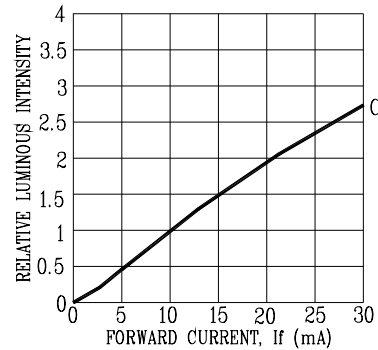


Fig3. Relative Luminous Intensity vs. DC Forward Current

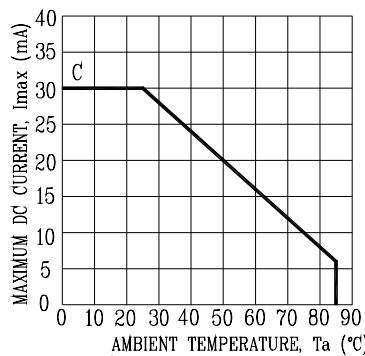


Fig4. Maximum Allowable DC Current vs. Ambient Temperature

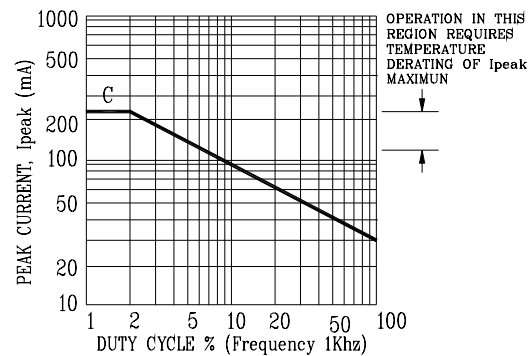


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE: C= AlGaAs RED