

## **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.

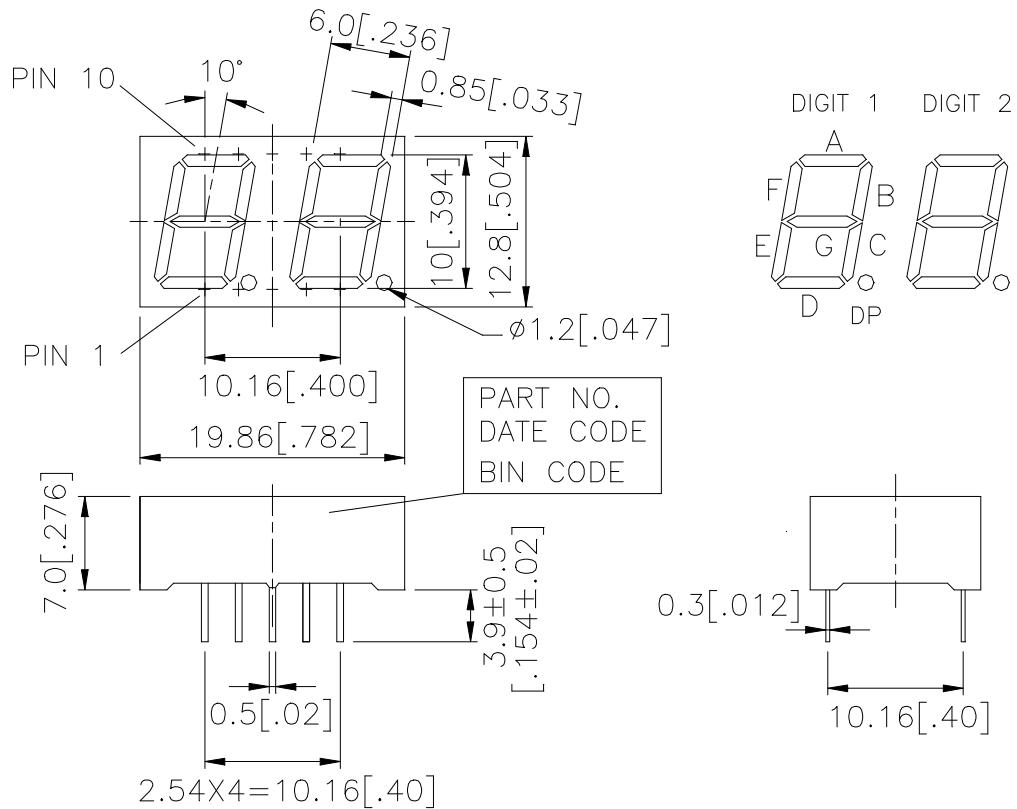
## **DESCRIPTION**

The LTD-4608E is a 0.4-inch (10.0-mm) digit height dual digit seven-segment display. This device utilizes red orange LED chips, which are made from GaAsP on a transparent GaP substrate, and has a gray face and white segments.

## **DEVICE**

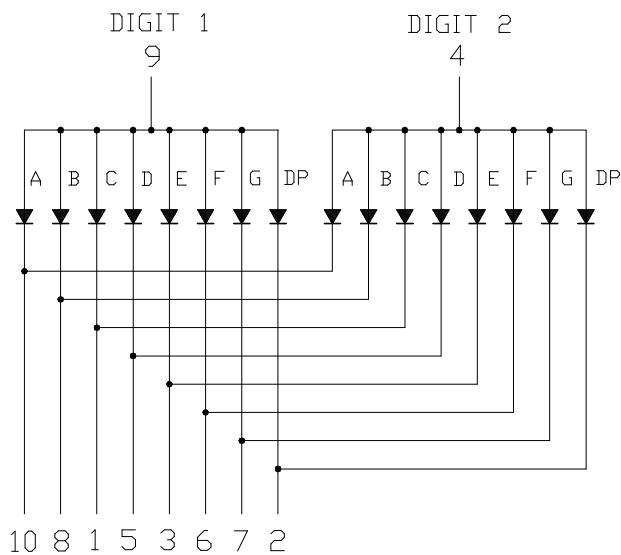
<b>PART NO.</b>	<b>DESCRIPTION</b>
RED ORANGE	Duplex Common Anode
LTD-4608E	Rt. Hand Decimal

## PACKAGE DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerance is  $\pm 0.25$ -mm (0.01") unless otherwise noted.

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

No.	CONNECTION
1	CATHODE C
2	CATHODE D.P.
3	CATHODE E
4	COMMON ANODE (DIGIT 2)
5	CATHODE D
6	CATHODE F
7	CATHODE G
8	CATHODE B
9	COMMON ANODE (DIGIT 1)
10	CATHODE A

**ABSOLUTE MAXIMUM RATING AT  $T_A=25^\circ\text{C}$** 

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 $25^\circ\text{C}$ Per Segment	0.33	mA/ $^\circ\text{C}$
Reverse Voltage Per Segment	5	V
Operating Temperature Range	$-35^\circ\text{C}$ to $+85^\circ\text{C}$	
Storage Temperature Range	$-35^\circ\text{C}$ to $+85^\circ\text{C}$	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds	$260^\circ\text{C}$	

**ELECTRICAL / OPTICAL CHARACTERISTICS AT  $T_A=25^\circ\text{C}$** 

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	$I_v$	800	2200		$\mu\text{cd}$	$I_F=10\text{mA}$
Peak Emission Wavelength	$\lambda_p$		630		nm	$I_F=20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$		40		nm	$I_F=20\text{mA}$
Dominant Wavelength	$\lambda_d$		621		nm	$I_F=20\text{mA}$
Forward Voltage Per Segment	$V_F$		2.0	2.6	V	$I_F=20\text{mA}$
Reverse Current Per Segment	$I_R$			100	$\mu\text{A}$	$V_R=5\text{V}$
Luminous Intensity Matching Ratio	$I_v\text{-m}$			2:1		$I_F=10\text{mA}$

Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (commision Internationale DE L'clairage) eye-response curve.

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

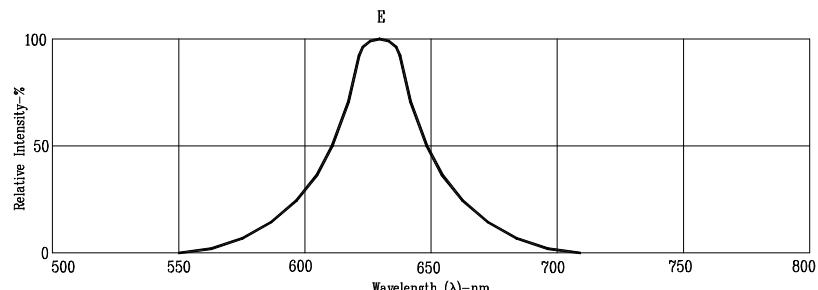


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

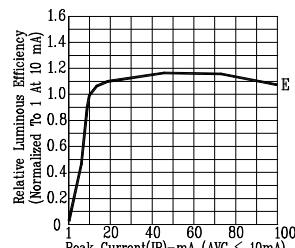


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

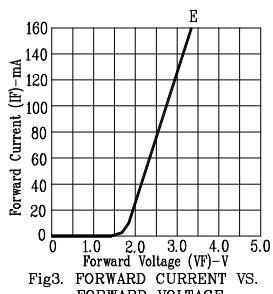


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

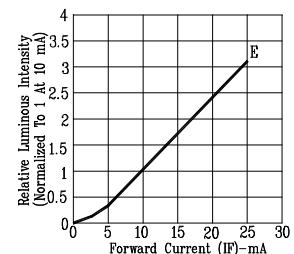


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

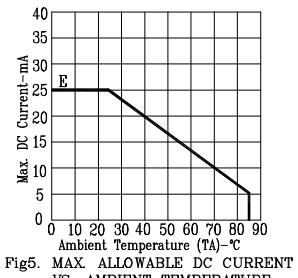


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

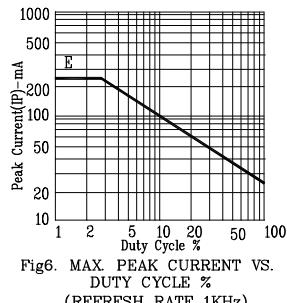


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: E=RED ORANGE

# Mouser Electronics

Authorized Distributor

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[LTD-4608E](#)