FEATURES

- 0.52 inch (13.2 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

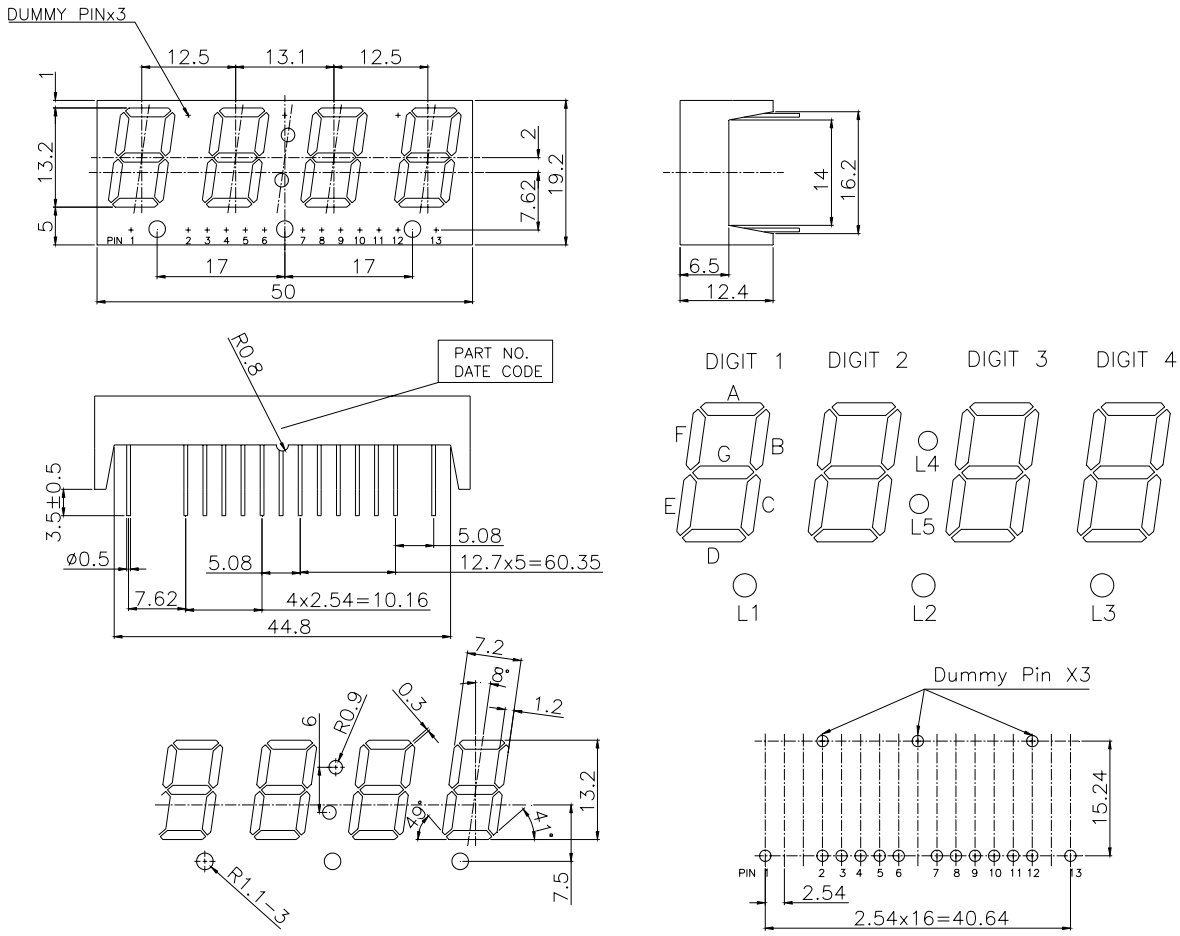
DESCRIPTION

The LTC-5673WC-03 is a 0.52 inch (13.2 mm) digit height quad digit seven-segment display. This device uses AlGaAs RED LED chips (AlGaAs epi on GaAs substrate). The display has black face and red segments. The AlGaAs red seven segment displays are designed for applications requiring low power consumption. They are tested and selected for the excellent low current characteristics to ensure that the segments are matched at low current. Drive current as low as 1 mA per segment is available.

DEVICE

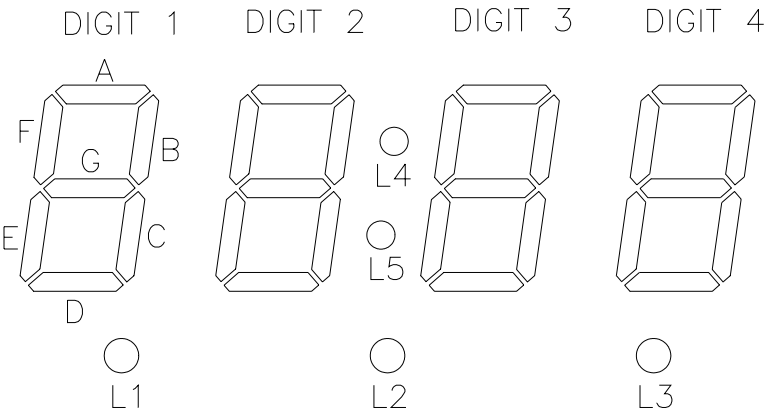
PART NO.	DESCRIPTION
AlGaAs Red	Multiplex Common Anode
LTC-5673WC-03	

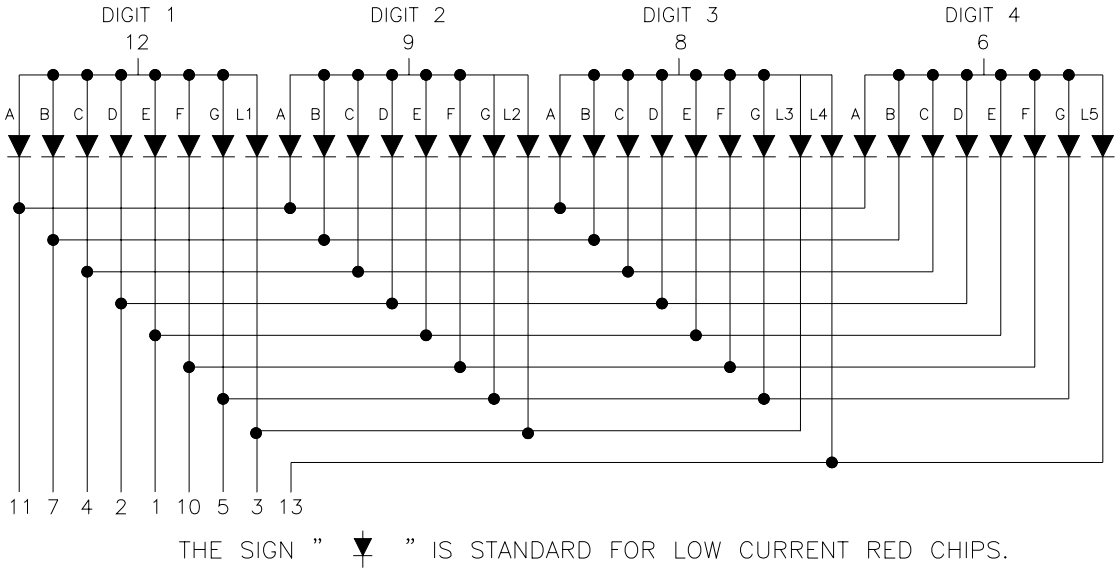
PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM





THE SIGN " ▼ " IS STANDARD FOR LOW CURRENT RED CHIPS.

PIN CONNECTION

No	CONNECTION
1	CATHODE E (DIGIT 1 ~ 4)
2	CATHODE D (DIGIT 1 ~ 4)
3	CATHODE L1 , L2 , L3
4	CATHODE C (DIGIT 1 ~ 4)
5	CATHODE G (DIGIT 1 ~ 4)
6	COMMON ANODE DIGIT 4 , L5
7	CATHODE B (DIGIT 1 ~ 4)
8	COMMON ANODE DIGIT 3 , L3 ,L4
9	COMMON ANODE DIGIT 2 , L2
10	CATHODE F (DIGIT 1 ~ 4)
11	CATHODE A (DIGIT 1 ~ 4)
12	COMMON ANODE DIGIT 1 , L1
13	CATHODE L4 , L5

ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (Frequency 1Khz, 25% duty cycle)	125*	mA
Continuous Forward Current Per Segment Forward Current Derating from 25^0C	30 0.4	mA mA/°C
Reverse Voltage Per Segment	8	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 260^0C		

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ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25^oC

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	I_V		650		μcd	I_F=1mA
			3400		μcd	I_F=5mA
Peak Emission Wavelength	λp		660		nm	I_F=20mA
Spectral Line Half-Width	Δλ		35		nm	I_F=20mA
Dominant Wavelength	λd		638		nm	I_F=20mA
Forward Voltage Per Segment	V_F		1.6	2.4	V	I_F=1mA
			1.7			I_F=5mA
			1.8			I_F=20mA
Reverse Current Per Segment	I_R			2	μA	V_R=8V
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.

(V_R =8V, I_R=2uA is based on basic load)

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

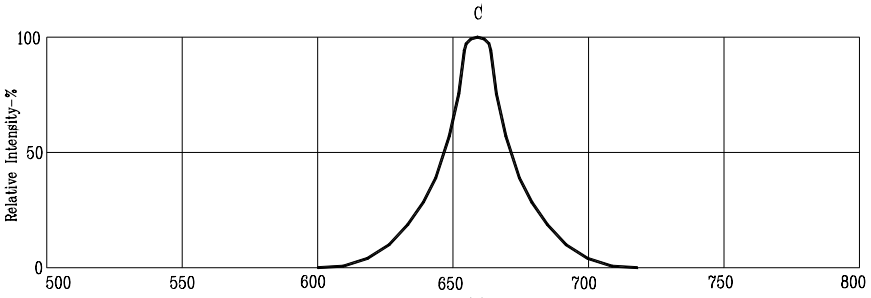

Fig1. RELATIVE INTENSITY VS. WAVELENGTH

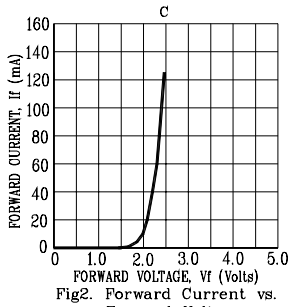

Fig2. Forward Current vs. Forward Voltage

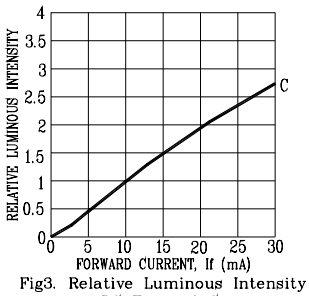

Fig3. Relative Luminous Intensity vs. DC Forward Current

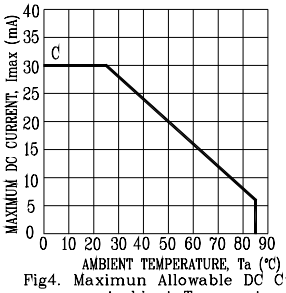

Fig4. Maximun Allowable DC Current vs. Ambient Temperature

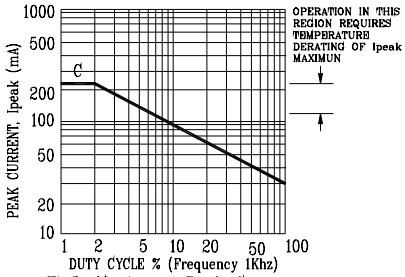

Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE: C=AlGaAs RED