

FEATURES

- * 1.0 inch (25.4 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.

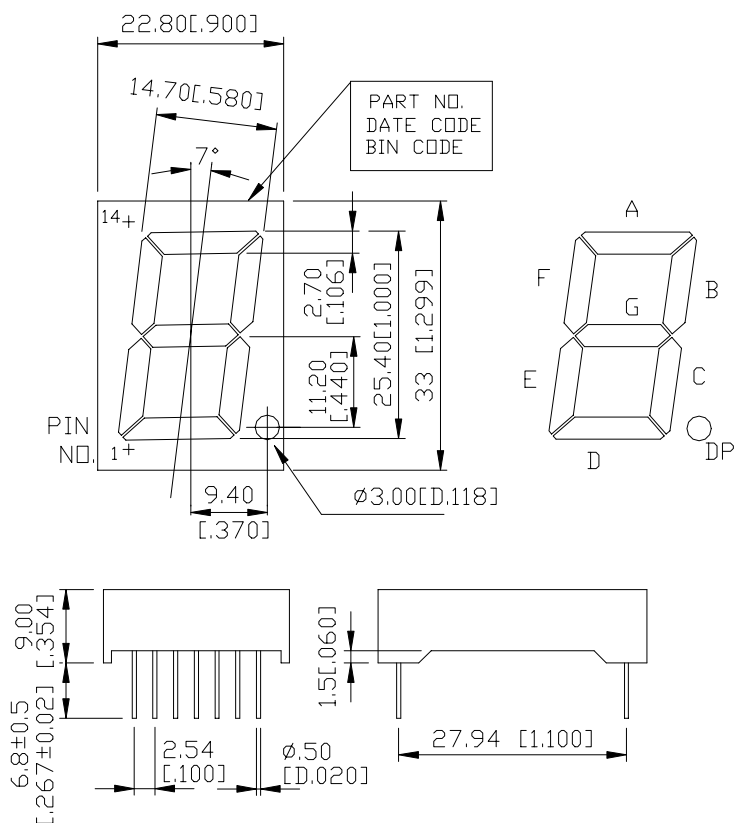
DESCRIPTION

The LTS-10804WC is a 1.0-inch (25.4-mm) digit height single digit low current seven-segment display. This device utilizes AlGaAs red LED chips, which are made from AlGaAs on a non-transparent GaAs substrate, and has a black face and white segments.

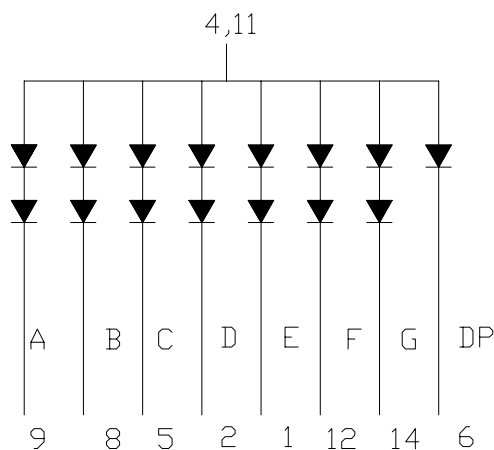
This low current seven-segment display is designed to perform under low power consumption. It is tested and selected for its excellent low current characteristics. It can be driven in low current condition and the segments are matched. This driving current as low as 1mA per segment is applicable.

DEVICE

PART NO.	DESCRIPTION
AlGaAs RED	COMMON ANODE RT. HAND DECIMAL
LTS-10804WC	

PACKAGE DIMENSIONS


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

INTERNAL CIRCUIT DIAGRAM


PIN CONNECTION

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

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	120(75)	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	125	mA
Continuous Forward Current Per Segment	30	mA
Derating Linear From 25°C Per Segment	0.4	mA/°C
Reverse Voltage Per Segment	10(5)	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	
Solder Temperature: max 260°C for max 3sec at 1.6mm[1/16inch] below seating plane.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	410	1200		μcd	I _F =1mA
			7500		μcd	I _F =5mA
Peak Emission Wavelength	λ _p		660		nm	I _F =20mA
Spectral Line Half-Width	Δλ		35		nm	I _F =20mA
Dominant Wavelength	λ _d		638		nm	I _F =20mA
Forward Voltage Per Segment	V _F		3.2 (1.6)	4.8 (2.4)	V	I _F =1mA
			3.4 (1.7)			I _F =5mA
			3.6 (1.8)			I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =10V(5V)
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.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

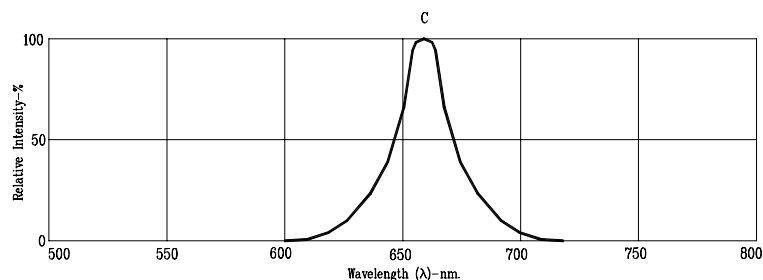


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

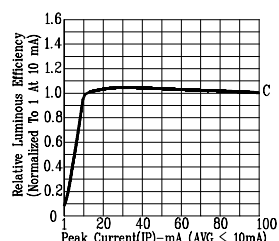


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

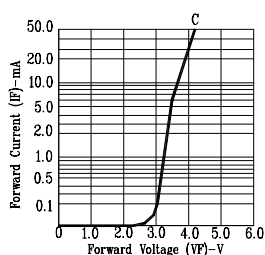


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

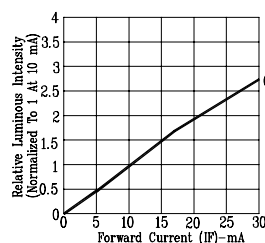


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

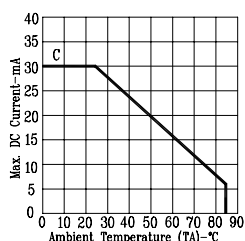


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

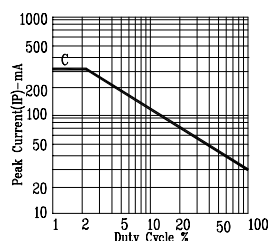


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: C=AlGaAs RED