



LED Display Product Data Sheet LTC-3610G

Spec No.: DS-30-93-153

Effective Date: 06/23/2000

Revision: A

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

FEATURES

- * 0.30 INCH (7.6 mm) DIGIT HEIGHT.
- * CONTINUOUS UNIFORM SEGMENTS.
- * LOW POWER REQUIREMENT.
- * EXCELLENT CHARACTERS APPEARANCE.
- * HIGH BRIGHTNESS & HIGH CONTRAST.
- * WIDE VIEWING ANGLE.
- * SOLID STATE RELIABILITY.

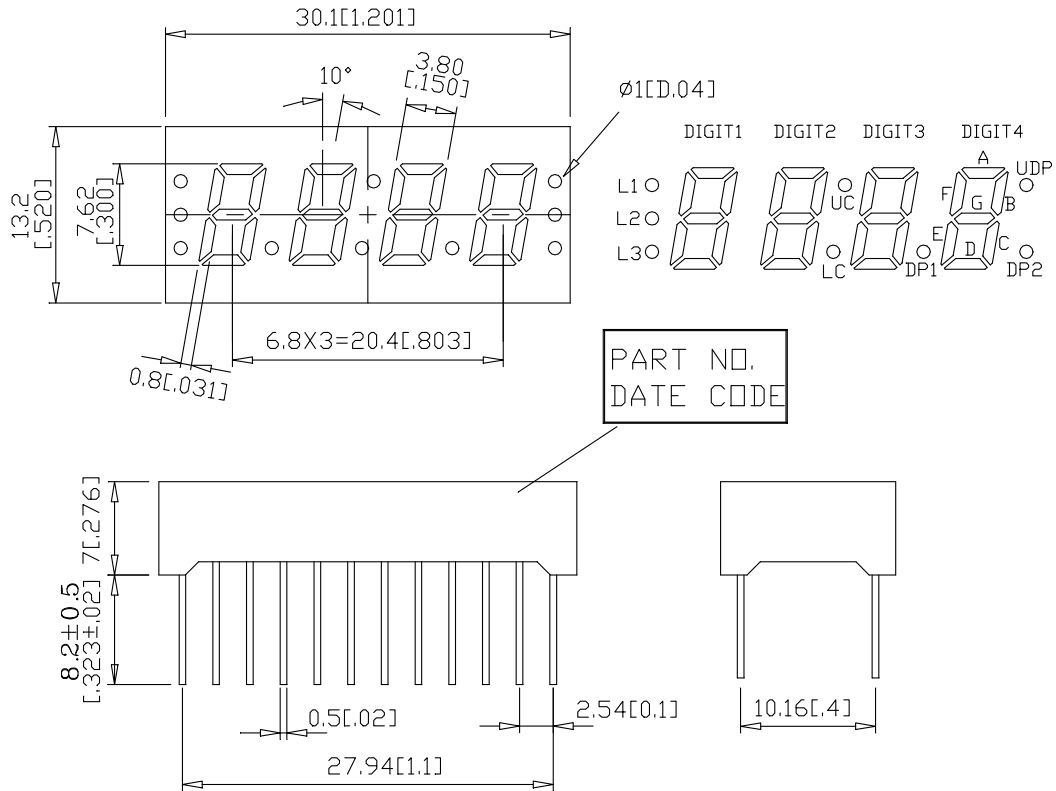
DESCRIPTION

The LTC-3610G is a 0.30 inch (7.6 mm) digit height quadruple digit seven-segment display. This device utilizes green LED chips, which are made from GaP on a transparent GaP substrate, and has a black face and white segments.

DEVICE

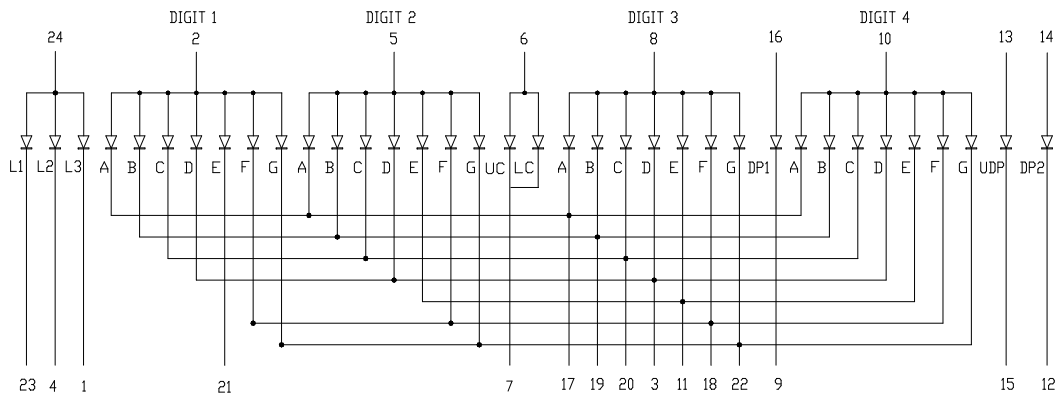
PART NO.	DESCRIPTION
GREEN	Multiplex Common Anode
LTC-3610G	Rt. Hand Decimal

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	NO	CONNECTION
1	CATHODE L3	13	ANODE UDP
2	COMMON ANODE DIGIT 1	14	ANODE DP2
3	CATHODE 1D, 2D, 3D, 4D	15	CATHODE UDP
4	CATHODE L2	16	ANODE DP1
5	COMMON ANODE DIGIT 2	17	CATHODE 1A, 2A, 3A, 4A
6	ANODE UC, LC	18	CATHODE 1F, 2F, 3F, 4F
7	CATHODE UC, LC	19	CATHODE 1B, 2B, 3B, 4B
8	COMMON ANODE DIGIT 3	20	CATHODE 1C, 2C, 3C, 4C
9	CATHODE DP1	21	CATHODE 1E
10	COMMON ANODE DIGIT 4	22	CATHODE 1G, 2G, 3G, 4G
11	CATHODE 2E, 3E, 4E	23	CATHODE L1
12	CATHODE DP2	24	ANODE L1, L2, L3

ABSOLUTE MAXIMUM RATING AT T_A=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 +85°C	
Storage Temperature Range	-35°C to +85°C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	750	1800		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		565		nm	I _F =20mA
Spectral Line Half-Width	Δλ		30		nm	I _F =20mA
Dominant Wavelength	λ _d		569		nm	I _F =20mA
Forward Voltage Per Segment	V _F		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =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 (Commission Internationale De L'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

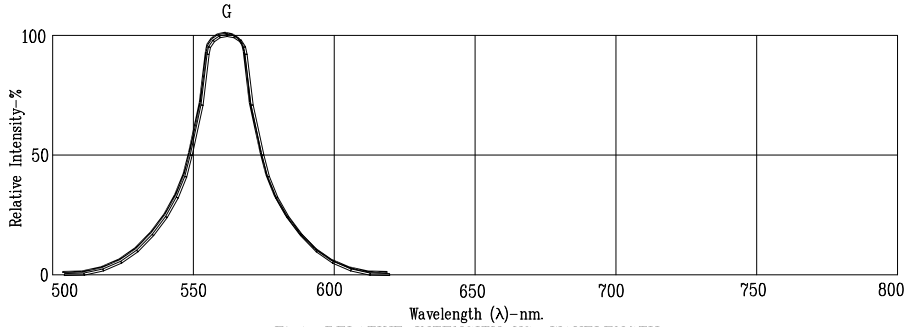


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

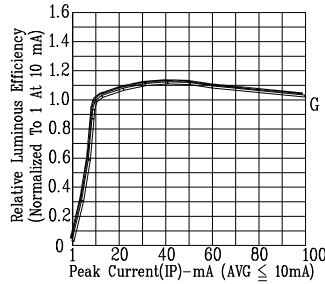


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

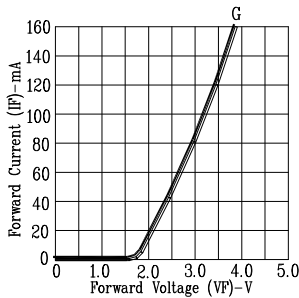


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

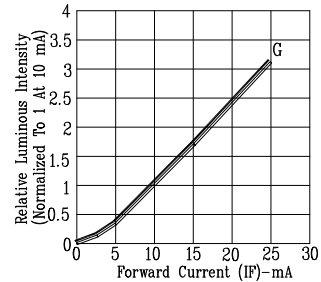


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

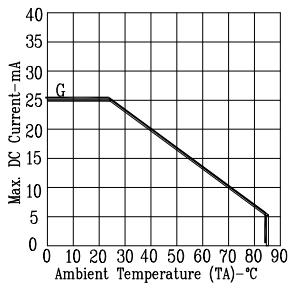


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

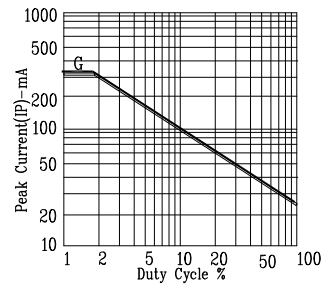


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN