



LED Display

Product Data Sheet

LTD-5307AG

Spec No.: DS-30-99-337

Effective Date: 04/12/2000

Revision: -

LITE-ON DCC

RELEASE

FEATURES

- * 0.56 INCH (14.22 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.

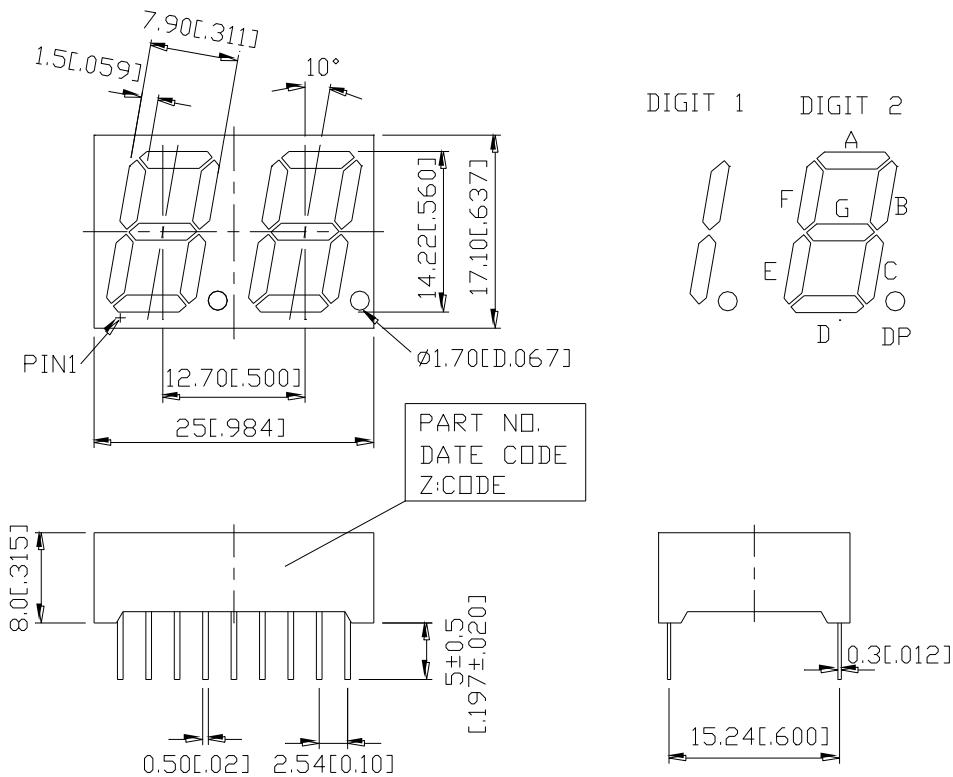
DESCRIPTION

The LTD-5307AG is a 0.56 inch (14.22 mm) height digit display. The green device utilizes LED chips which are made from GaP on a transparent GaP substrate, and have light gray face and green segment color.

DEVICE

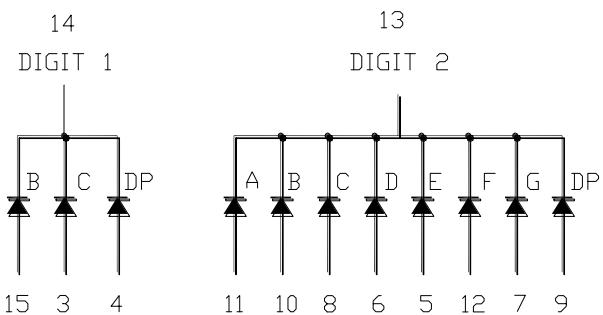
PART NO	DESCRIPTION
Green	Common Cathode
LTD-5307AG	Rt. Hand Decimal

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No	CONNECTION
1	NO CONNECTION
2	NO CONNECTION
3	ANODE C (DIGIT 1)
4	ANODE D.P. (DIGIT 1)
5	ANODE E (DIGIT 2)
6	ANODE D (DIGIT 2)
7	ANODE G (DIGIT 2)
8	ANODE C (DIGIT 2)
9	ANODE D.P. (DIGIT 2)
10	ANODE B (DIGIT 2)
11	ANODE A (DIGIT 2)
12	ANODE F (DIGIT 2)
13	COMMON CATHODE (DIGIT 2)
14	COMMON CATHODE (DIGIT 1)
15	ANODE B (DIGIT 1)
16	NO CONNECTION
17	NO CONNECTION
18	NO CONNECTION

ABSOLUTE MAXIMUM RATING AT TA=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse idth)	100	mA
Continuous Forward Current Per segment	25	mA
Derating Linear From 25°C Per Segment	0.28	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds	at 260°C	

ELECTRICAL / OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	800	2400		μ cd	I _F =10mA
Peak Emission Wavelength	λ _p		565		nm	I _F =20mA
Spectral Line Half-Width	△ λ		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	μ A	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 international DEL clariage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

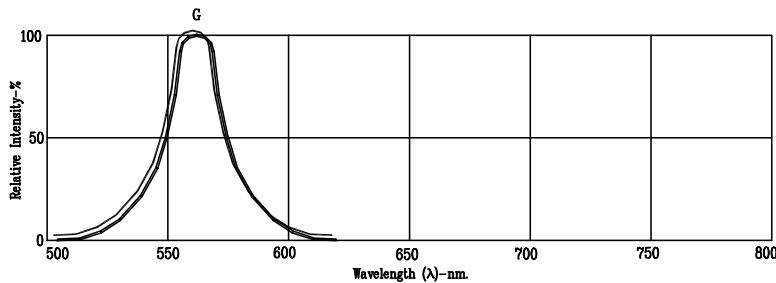


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

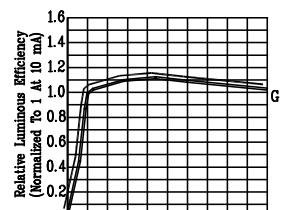


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

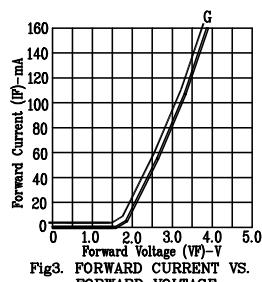


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

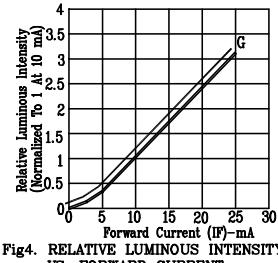


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

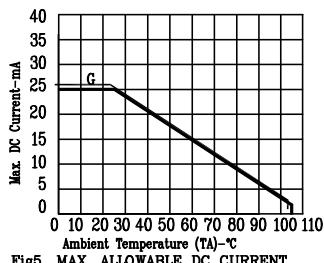


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

NOTE: G=GREEN

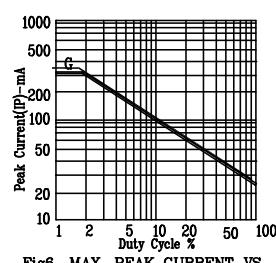


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)