

LED DISPLAY**LTS-5603AG-J**
DATASHEET

<u>Rev</u>	<u>Description</u>	<u>By</u>
-	ORIGINAL VERSION	<u>Warin S.</u>

SPEC. NO.: DS30-2007-0194

DATE : Nov 9 ,2007

REV. NO. : -

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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.
- * **LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

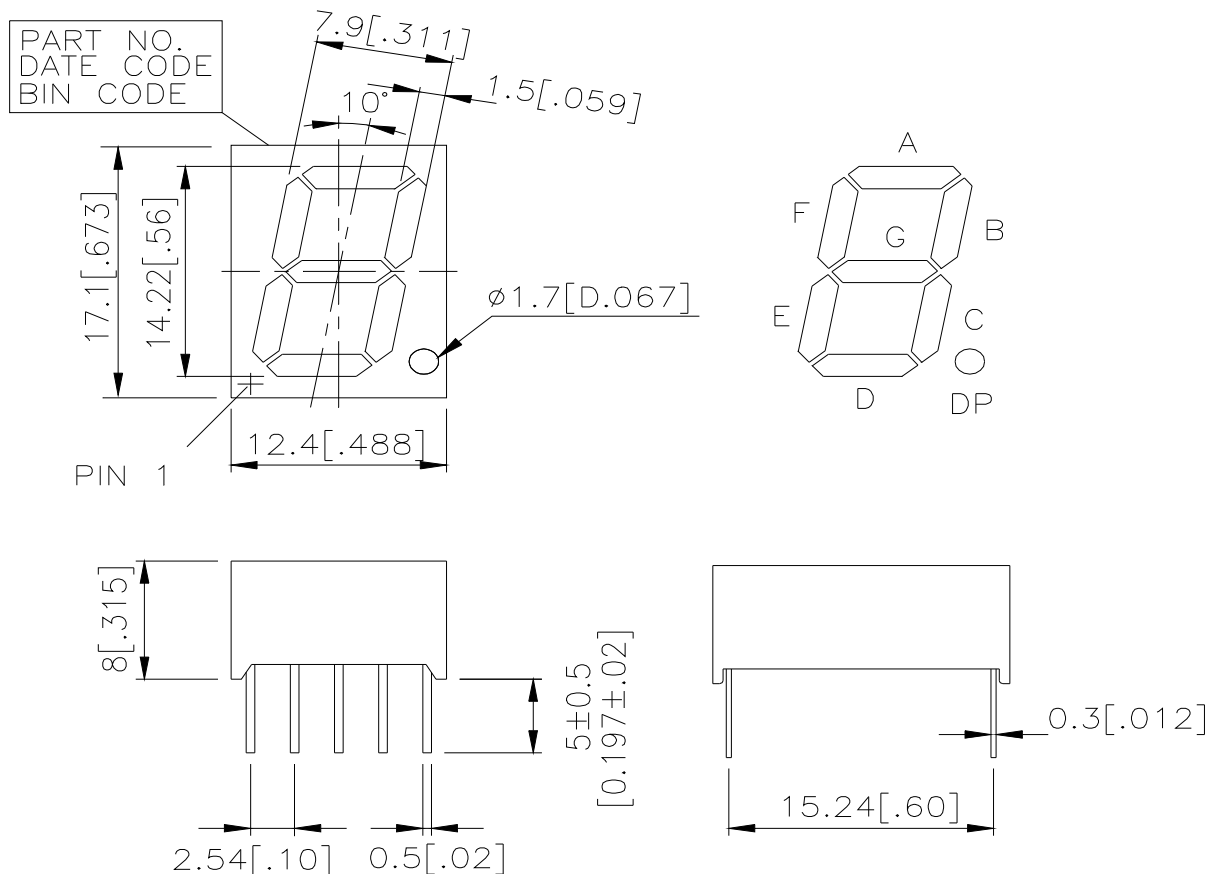
DESCRIPTION

The LTS-5603AG-J is a 0.56-inch (14.22-mm) digit height single digit seven-segment display. This device utilizes green LED chips, which are made from GaP on GaP substrate, and has a gray face and green segments.

DEVICE

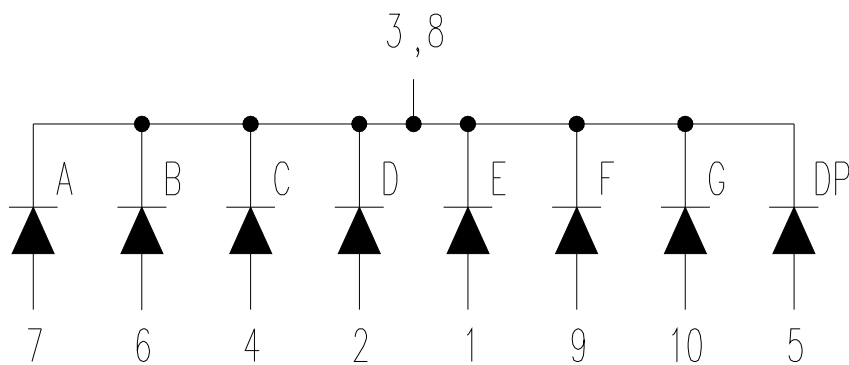
PART NO.	DESCRIPTION
GREEN	Common Cathode
LTS-5603AG-J	Rt. Hand Decimal

PACKAGE DIMENSIONS



- NOTES: 1. All dimensions are in millimeters. Tolerance: ± 0.25 -mm (0.01") unless otherwise noted.
 2. Pin tip's shift tolerance are ± 0.40 mm

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

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 Width)	100	mA
Continuous Forward Current Per Segment Derating Linear From 25°C Per Segment	25 0.33	mA mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	

Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°C.,
or temperature of unit (during assembly) not over max. temperature rating above

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1300	3500		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(Similar Light Area)	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'Eclariage) eye-response curve.

BIN TABLE 2	BIN RANK TABLE					μcd I _F =10mA
BIN GRAD	J	K	L	M	N	
RANG	1301-2100	2101-3400	3401-5400	5401~8600	8601~13700	
HUE TABLE 4	BIN RANK TABLE					nm I _F =20mA
HUE	2	3	4	5	6	
RANG	562.1-564	564.1-566	566.1-568	568.1-570	570.1-572	

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

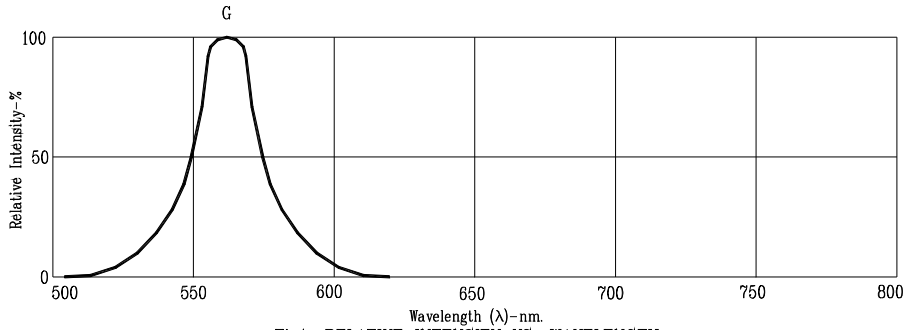


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

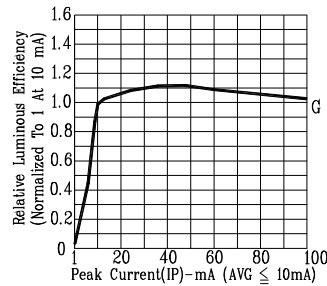


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

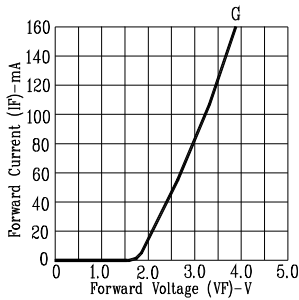


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

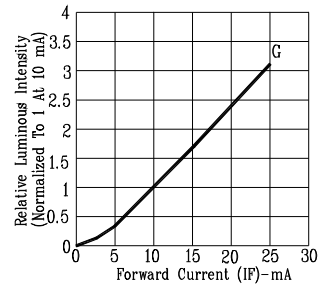


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

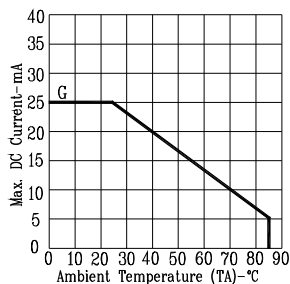


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

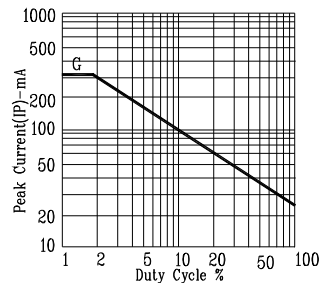
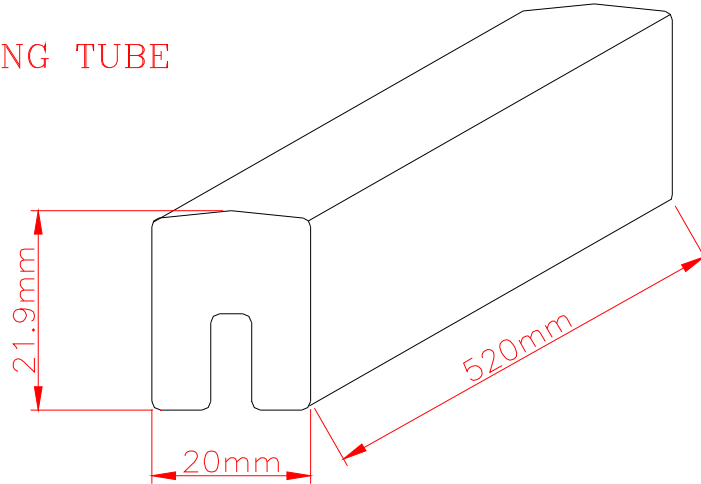
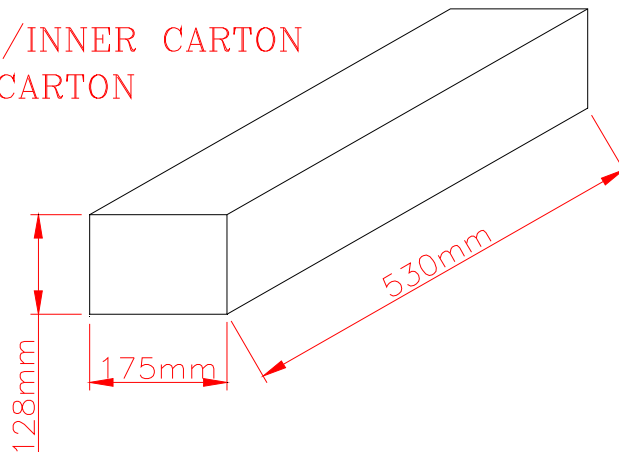


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: G=GREEN

Packing Specification

40 PCS/PACKING TUBE

48 PACKING TUBE/INNER CARTON
1920 PCS/INNER CARTON4 INNER CARTON/OUTER CARTON
7680 PCS/OUTER CARTON