



# LED Display

## Product Data Sheet

### LTS-10314KG-01J

Spec No.: DS30-2006-098

Effective Date: 08/01/2006

Revision: -

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

## **FEATURES**

- \* 1.0 inch (25.4 mm) DIGIT HEIGHT.
- \* EXCELLENT SEGMENT UNIFORMITY.
- \* LOW POWER REQUIREMENT.
- \* HIGH BRIGHTNESS AND HIGH CONTRAST.
- \* WIDE VIEWING ANGLE.
- \* SOLID STATE RELIABILITY.
- \* BINNED FOR LUMINOUS INTENSITY.
- \* **LEAD-FREE PACKAGE.**

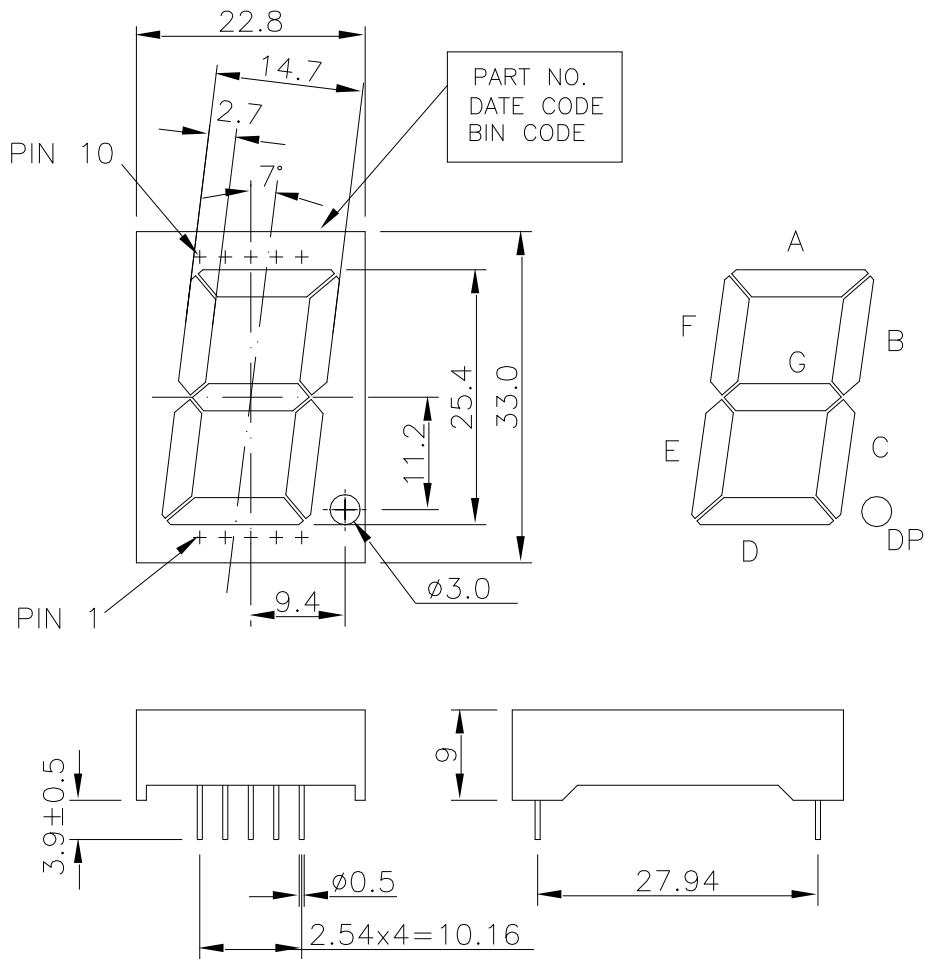
## **DESCRIPTION**

The LTS-10314KG-01J is a 1.0 inch (25.4 mm) digit height single digit display. This device uses AS-AllnGaP GREEN LED chips (AllnGaP epi on GaAs substrate). The display has black face and green segments.

## **DEVICE**

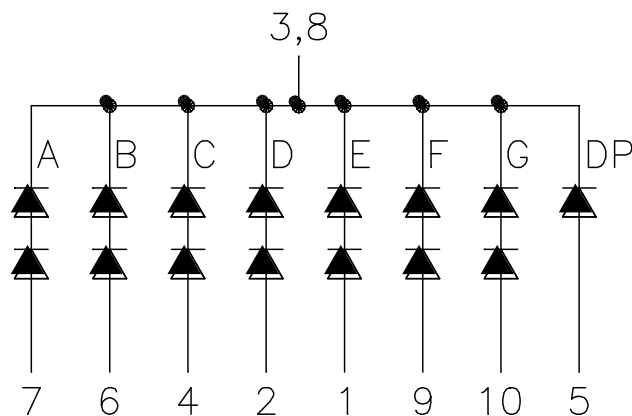
<b>PART NO.</b>	<b>DESCRIPTION</b>
AllnGaP GREEN	Common Cathode
LTS-10314KG-01J	

## PACKAGE DIMENSIONS



- NOTES: 1. All dimensions are in millimeters. Tolerances are  $\pm 0.25$  mm (0.01") unless otherwise noted.  
 2. Pin tip's shift tolerance is  $\pm 0.4$  mm.

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

<b>No.</b>	<b>CONNECTION</b>
1	Anode E
2	Anode D
3	Common Cathode
4	Anode C
5	Anode DP
6	Anode B
7	Anode A
8	Common Cathode
9	Anode F
10	Anode G

## ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	134 (70)	mW
Peak Forward Current Per Segment ( Frequency 1Khz, 25% duty cycle)	60	mA
Continuous Forward Current Per Segment	24	mA
Derating Linear From 25°C Per Segment	0.31	mA/°C
Reverse Voltage Per Segment	10(5)	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Solder 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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	I <sub>v</sub>	900	3375 33750		ucd	IF = 1mA IF = 10mA
Peak Emission Wavelength	λ <sub>p</sub>		571		nm	IF = 20mA
Spectral Line Half-Width	Δλ		15		nm	IF = 20mA
Dominant Wavelength	λ <sub>d</sub>		572		nm	IF = 20mA
Forward Voltage Per Segment	V <sub>F</sub>		4.1 (2.05)	5.2 (2.6)	V	IF = 20mA
Reverse Current Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> = 5V
Luminous Intensity Matching Ratio (Same Light Area)	I <sub>v</sub> -m			2 : 1		IF = 1mA

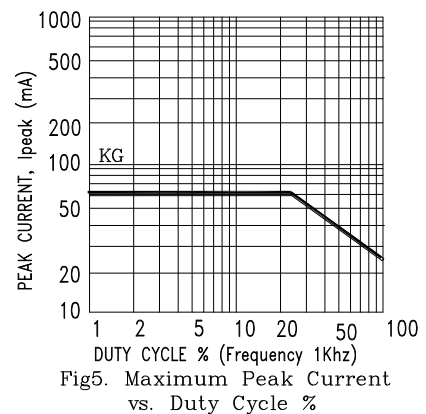
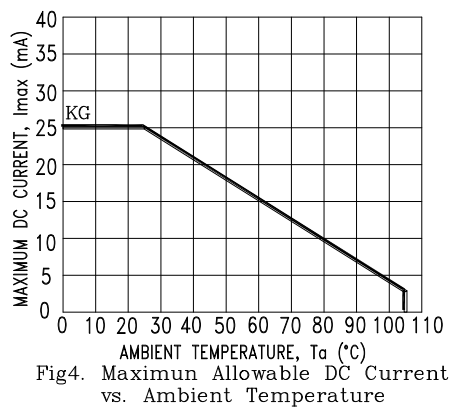
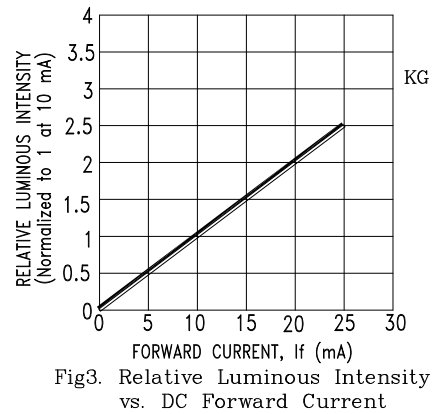
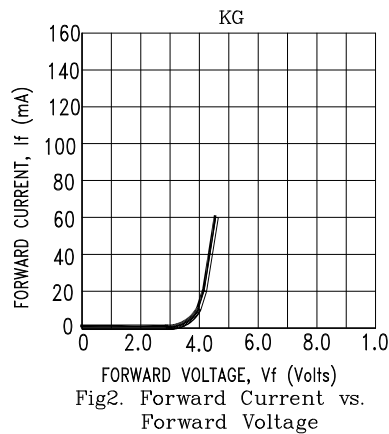
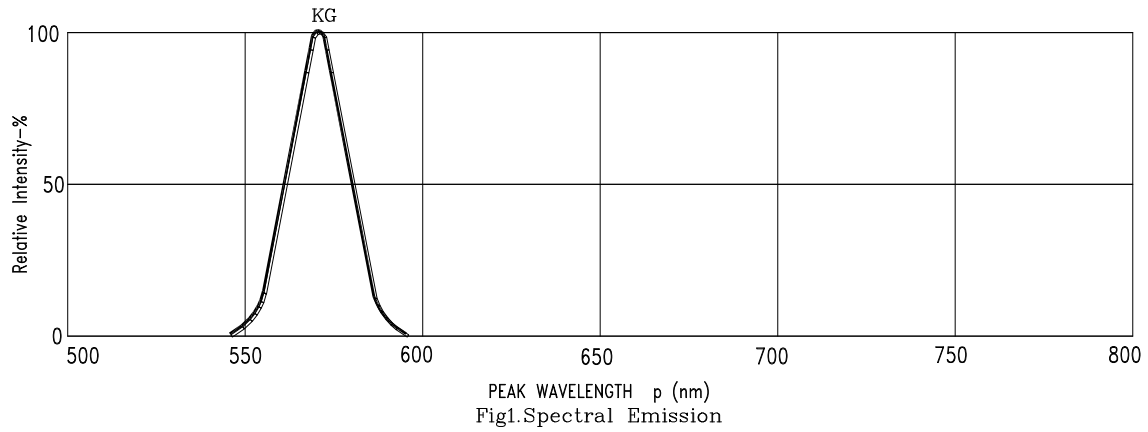
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

BIN TABLE 2	BIN RANK TABLE					UNIT : ucd/seg @(IF=1mA.)
BIN GRADE	H	J	K	L	M	
RANGE	801~1300	1301~2100	2101~3400	3401~5400	5401~8600	

HUE TABLE 5	HUE TABLE			UNIT : nm@20mA.
HUE CODE	5	6	7	
RANGE	568.1~570	570.1~572	572.1~574	

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



NOTE : KG=AlInGaP Green