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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Spec No.: DS30-2010-0171**Effective Date: 10/13/2012

Revision: -

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4



# LITEONI® LITE-ON TECHNOLOGY CORPORATION

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**LED DISPLAY** 

## LTS-5501AE-09J **DATA SHEET**

ITEM	DESCRIPTION	ISSUER	DATE
1	New	Lester Chen	2010/06/01
2	Delete Reverse Voltage Per Dice at absolute maximum rating. Add Reverse voltage remark at electrical/ optical characteristics.	Eason Lin	2010/08/05

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#### **FEATURES**

- \*0.56inch (14.22mm ) DIGIT HEIGHT
- \*CONTINUOUS UNIFORM SEGMENTS
- **\*LOW POWER REQUIREMENT**
- \*EXCELLENT CHARACTERS APPEARANCE
- \*HIGH BRIGHTNESS AND HIGH CONTRAST
- \*WIDE VIEWING ANGLE
- **\*SOLID STATE RELIABILITY**
- \*CATEGORIZED FOR LUMINOUS INTENSITY
- **\*LEAD-FREE PACKAGE (ACCORDING TO RoHS)**

#### **DESCRIPTION**

The LTS-5501AE-09J is a 0.56 inch (14.22 mm) digit height single digit display. This device utilizes red orange LED chips which are made from GaAsP on GaP substrate, and has a gray face and white segments.

#### **DEVICE**

PART NO.	DESCRIPTION				
Red Orange	Common Anode				
LTS-5501AE-09J	Rt. Hand Decimal				

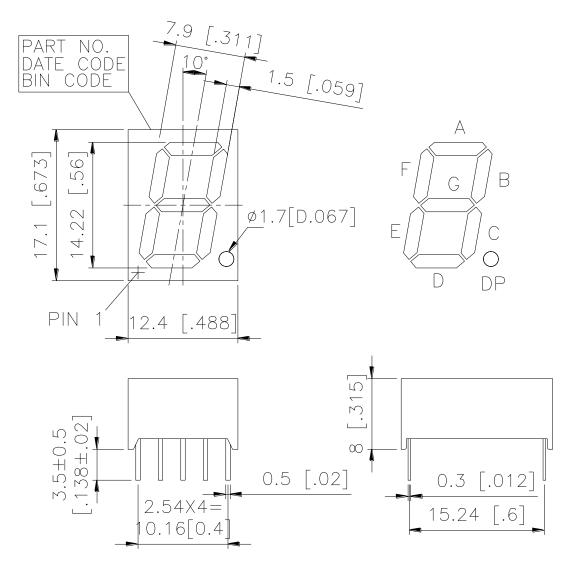
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#### **PACKAGE DIMENSIONS**



NOTES: 1.All dimensions are in millimeters. Tolerances are  $\pm~0.25~\text{mm}$  (0.01") unless otherwise noted.

2. Pin tip's shift tolerance is  $\pm 0.4$  mm

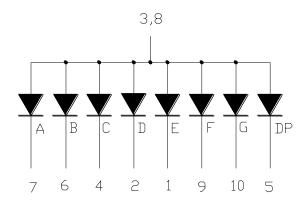
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#### **INTERNAL CIRCUIT DIAGRAM**



#### **PIN CONNECTION**

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

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#### **ABSOLUTE MAXIMUM RATING**

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Segment	75	mW			
Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle)	100	mA			
Continuous Forward Current Per Segment	25	mA			
Derating Linear From 25°C Per Segment	0.28	mA/ <sup>0</sup> C			
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 5 seconds at 260°C					

#### **ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C**

PARAMETER	SYMBOL	MIN	ТҮР	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	lv	800	2400		μcd	IF = 10mA
Peak Emission Wavelength	λр		630		nm	IF = 20mA
Spectral Line Half-Width	Δλ		40		nm	IF = 20mA
Dominant Wavelength	λd		621		nm	IF = 20mA
Forward Voltage Per Segment	VF		2.0	2.6	V	IF = 20mA
Reverse Current Per Segment <sup>(2)</sup>	lr			100	μΑ	$V_R = 5V$
Luminous Intensity Matching Ratio (Similar Light Area)	lv-m			2:1		IF= 10mA

**BIN TABLE** ucd/seg-10mA

Bin Grade	н	J	K	L	М
Range	801~1300	1301~2100	2101~3400	3401~5400	5401~8600

#### Note:

- 1. Luminous Intensity is measured with a light sensor and filter combination that approximates the CIE (Commission Internationale De L'Eclairage) eye-response curve.
- 2. Reverse voltage is only for IR test. It can not continue to operate at this situation.

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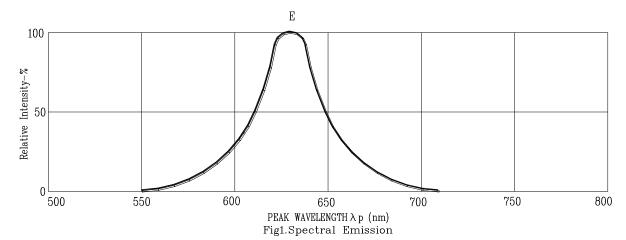


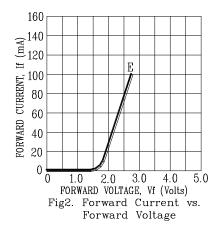
#### LITE-ON TECHNOLOGY CORPORATION

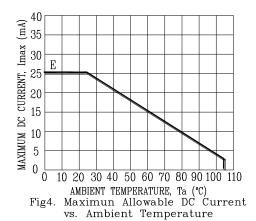
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#### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)







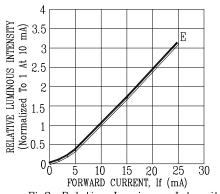
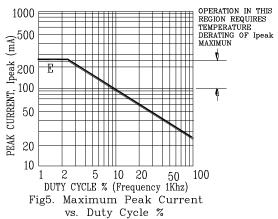


Fig3. Relative Luminous Intensity vs. DC Forward Current



NOTE: E=RED ORANGE

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