LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTS-5501AE-09J

Spec No.: DS30-2010-0171

Effective Date: 10/13/2012

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LITE-ON Technology Corp. / Optoelectronics
No.90,Chien 1 Road, Chung Ho, New Taipei City 23585, Taiwan, R.O.C.
Tel: 886-2-2222-6181 Fax: 886-2-2221-1948 / 886-2-2221-0660
http://www.liteon.com/opto

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

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)**

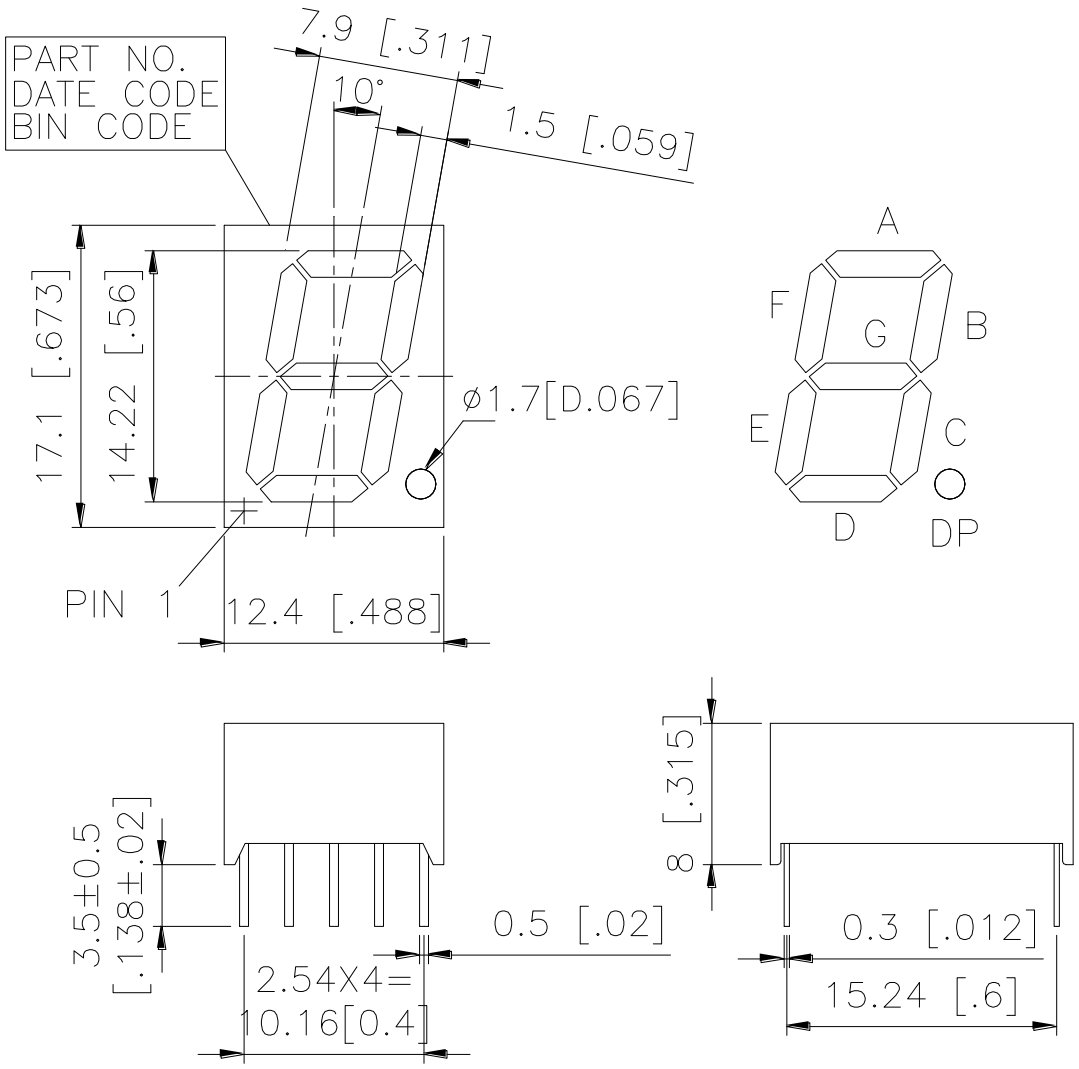
DESCRIPTION

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

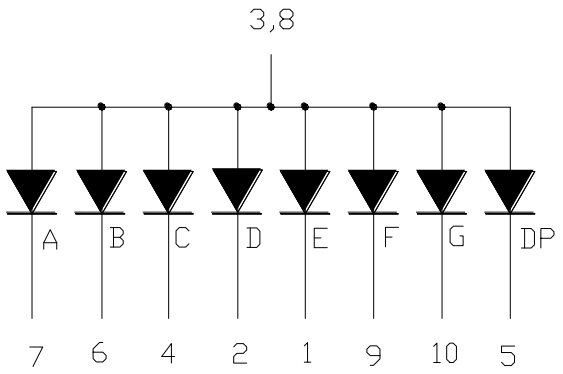
PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters. Tolerances are± 0.25 mm (0.01“) unless otherwise noted.

2. Pin tip’s shift tolerance is ± 0.4 mm

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

No	CONNECTION
1	CATHODE E
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

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 Derating Linear From 25^0C Per Segment	25 0.28	mA mA/^{0}C
Operating Temperature Range	-35^{0}C to +105^{0}C	
Storage Temperature Range	-35^{0}C to +105^{0}C	
Soldering Conditions : 1/16 inch below seating plane for 5 seconds at 260^{0}C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25^{o}C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	I_V	800	2400		μcd	I_F = 10mA
Peak Emission Wavelength	λp		630		nm	I_F = 20mA
Spectral Line Half-Width	Δλ		40		nm	I_F = 20mA
Dominant Wavelength	λd		621		nm	I_F = 20mA
Forward Voltage Per Segment	V_F		2.0	2.6	V	I_F = 20mA
Reverse Current Per Segment(2)	I_R			100	μA	V_R = 5V
Luminous Intensity Matching Ratio (Similar Light Area)	I_V-m			2:1		I_F = 10mA

BIN TABLE ucd/seg-10mA

Bin Grade	H	J	K	L	M
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 (Commision Internationale De L'Eclairage) eye-response curve.
2. Reverse voltage is only for IR test. It can not continue to operate at this situation.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

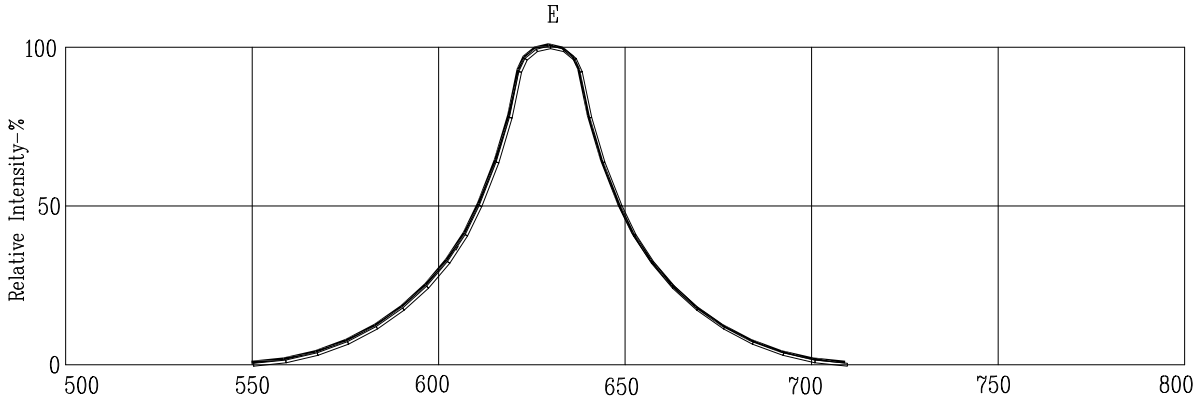


Fig1.Spectral Emission

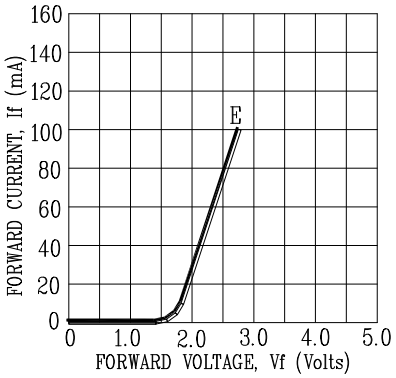


Fig2. Forward Current vs. Forward Voltage

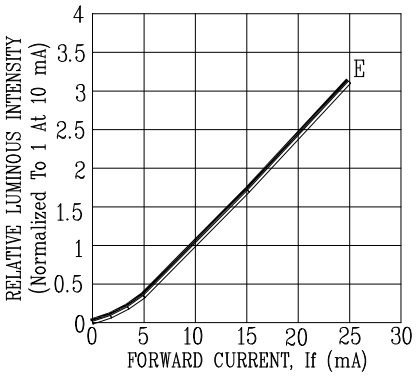


Fig3. Relative Luminous Intensity vs. DC Forward Current

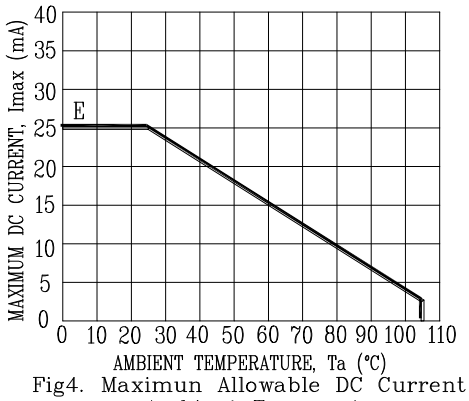


Fig4. Maximun Allowable DC Current vs. Ambient Temperature

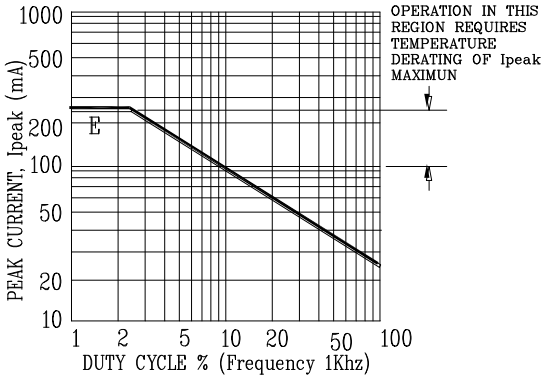
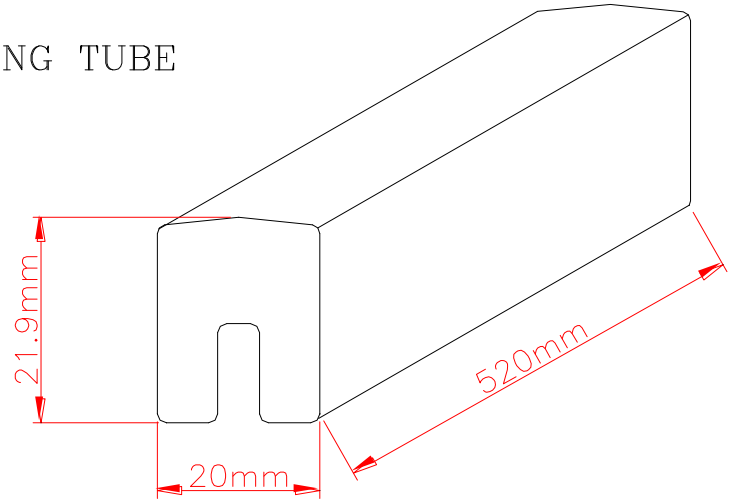


Fig5. Maximum Peak Current vs. Duty Cycle %

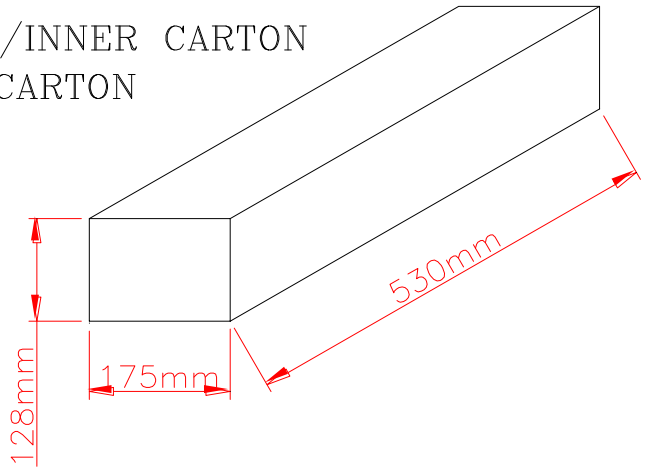
NOTE: E=RED ORANGE

PACKING SPEC.

40 PCS/PACKING TUBE



48 PACKING TUBE/INNER CARTON
1920 PCS/INNER CARTON



4 INNER CARTON/OUTER CARTON
7680 PCS/OUTER CARTON