LITEON
OPTOELECTRONICS

LED Display

Product Data Sheet

LTC-5623JD

Spec No.: DS30-2001-186

Effective Date: 08/06/2013

Revision: C

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

LED DISPLAY

LTC-5623JD
DATA SHEET

ITEM	DESCRIPTION	ISSUER	DATE
1	New Spec.	Reo Lin	03/23/2011
2	Modify Operating Temperature Range and Storage Temperature Range in Page 5 and 6 (This request from customer)	Reo Lin	07/19/2013

FEATURES

* 0.56 inch (14.2 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)**

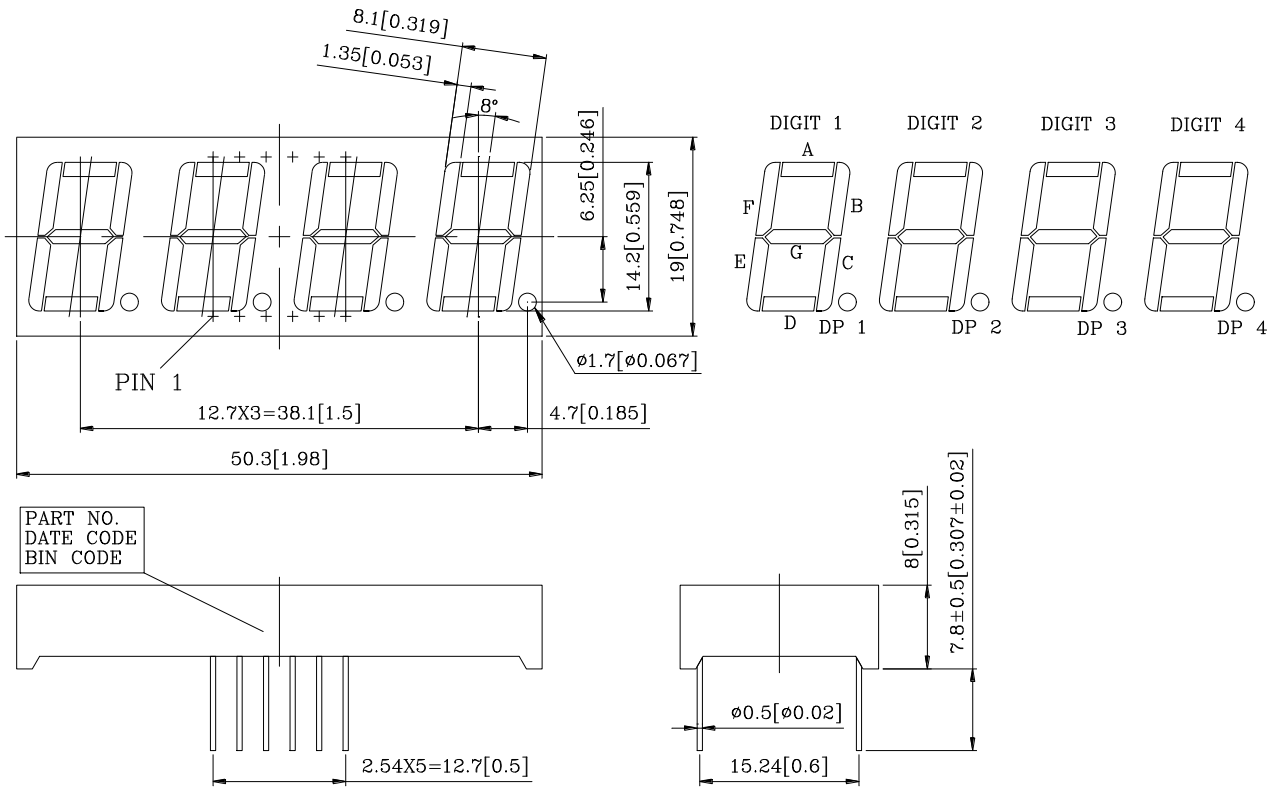
DESCRIPTION

The LTC-5623JD is a 0.56 inch (14.2 mm) digit height quadruple digit seven-segment display. This device utilizes AlInGap Hyper Red LED chips, which are made from AlInGap on a non-transparent GaAs substrate, and has a gray face and white segments.

DEVICE

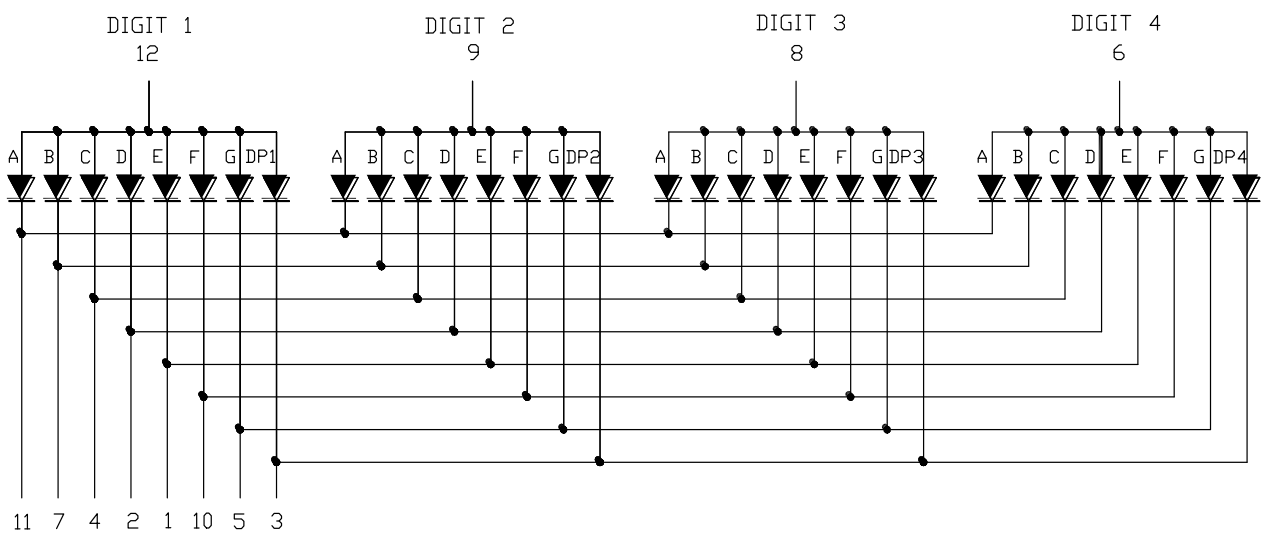
PART NO.	DESCRIPTION
AlInGap Hyper Red	Common Anode
LTC-5623JD	Rt. Hand Decimal

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.(suggest mother board pin hole ψ1.0 mm)

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	90	mA
Continuous Forward Current Per Segment Derating Linear From 25℃ Per Segment	25 0.28	mA mA/℃
Operating Temperature Range	-35℃ to +105℃	
Storage Temperature Range	-35℃ to +105℃	
Solder Temperature: max 260℃ for max 3sec at 1.6mm[1/16inch] below seating plane.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	320	700		μcd	IF=1mA
Peak Emission Wavelength	λp		650		nm	IF=20mA
Spectral Line Half-Width	Δλ		20		nm	IF=20mA
Dominant Wavelength	λd		639		nm	IF=20mA
Forward Voltage Per Segment			2.1	2.6	V	IF=20mA
Reverse Current Per Segment(2)	IR			100	μA	VR=5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF=1mA

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)

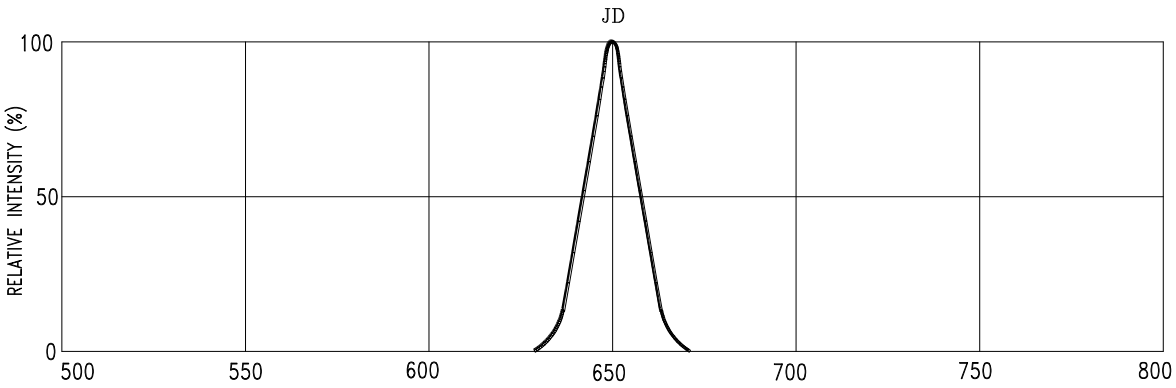


Fig1.Spectral Emission

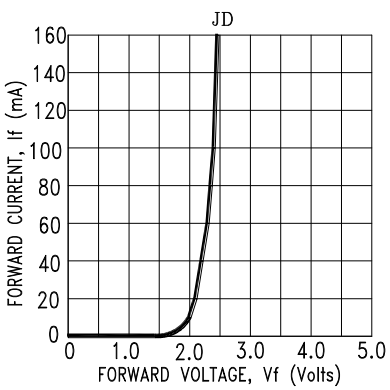


Fig2. Forward Current vs. Forward Voltage

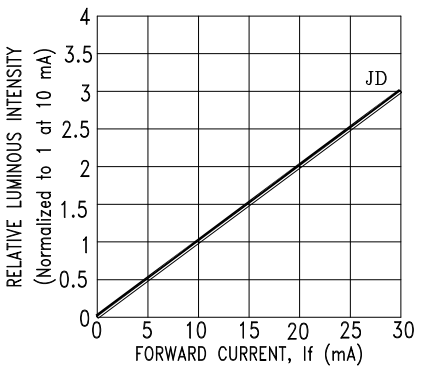


Fig3. Relative Luminous Intensity vs. DC Forward Current

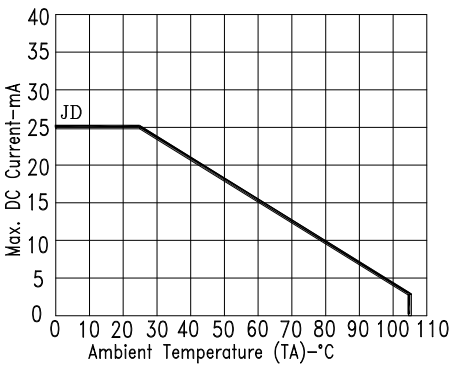


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

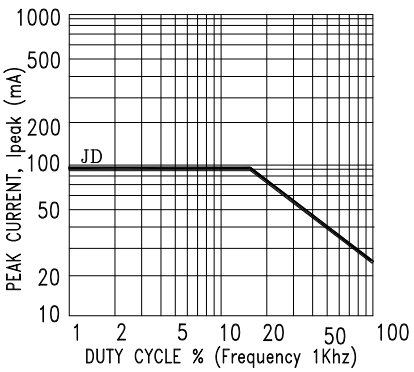


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE : JD=AlInGaP HYPER RED