LED DISPLAY

LTC-4624JD-02J
DATASHEET

Rev	Description	By
01	ORIGINAL (Refer to contour drawing Revision (-))	KITTISAK May 29/2008
02	Change pin length from 26mm(+/-0.5mm) to 25mm(+/-0.5mm)	KITTISAK June 06/2008
(Above data for PD and Customer tracking only)		
-	NPPR Received and Upload on OPNC	KITTISAK B. Sep 09/2008

SPEC. NO.: DS30-2008-0163

D A T E : Sep 09/2008

REV. NO. : -

PAGE NO. : 0 OF 6

FEATURES

* 0.4inch (10.0mm) 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).**

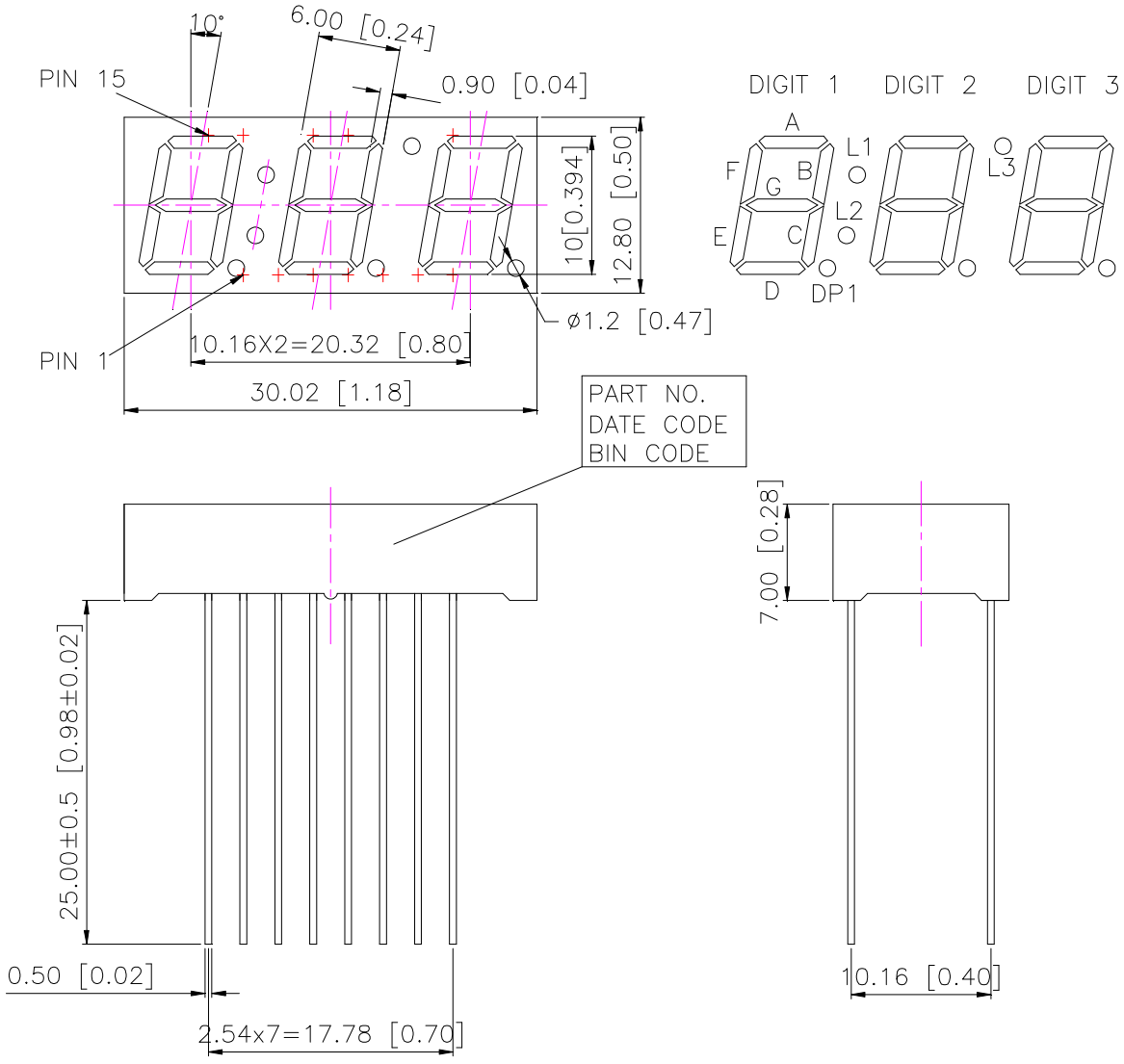
DESCRIPTION

The LTC-4624JD-02J is a 0.4 inch (10.0 mm) digit height triple 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

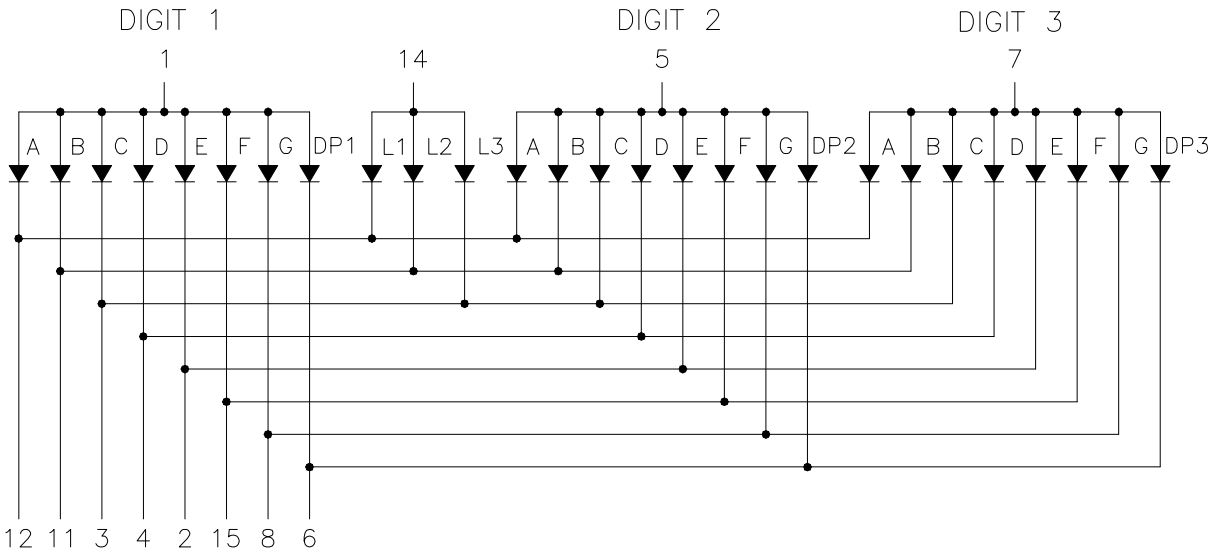
PART NO.	DESCRIPTION
AlInGaP Hyper Red	Multiplex Common Anode
LTC-4624JD-02J	Rt. Hand Decimal

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	COMMON ANODE DIGIT 1
2	CATHODE E
3	CATHODE C,L3
4	CATHODE D
5	COMMON ANODE DIGIT 2
6	CATHODE DP
7	COMMON ANODE DIGIT 3
8	CATHODE G
9	NO PIN
10	NO PIN
11	CATHODE B,L2
12	CATHODE A,L1
13	NO PIN
14	COMMON ANODE L1,L2,L3
15	CATHODE F

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/℃
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35℃ to +105℃	
Storage Temperature Range	-35℃ to +105℃	
Solder Conditions: 1/16 inch below seating plane for 3 seconds at 260℃, 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	200	750		μcd	I_F=1mA
Peak Emission Wavelength	λp		650		nm	I_F=20mA
Spectral Line Half-Width	Δλ		20		nm	I_F=20mA
Dominant Wavelength	λd		639		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=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

BIN TEBLE 2 FOR LUMINOUS INTENSITY

BIN GRADE	E	F	G	H	J
RANGE(ucd)IF=10mA	201-320	321-500	501-800	801-1300	1301-2100

The Luminous Intensity Tolerance ±15percentage

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

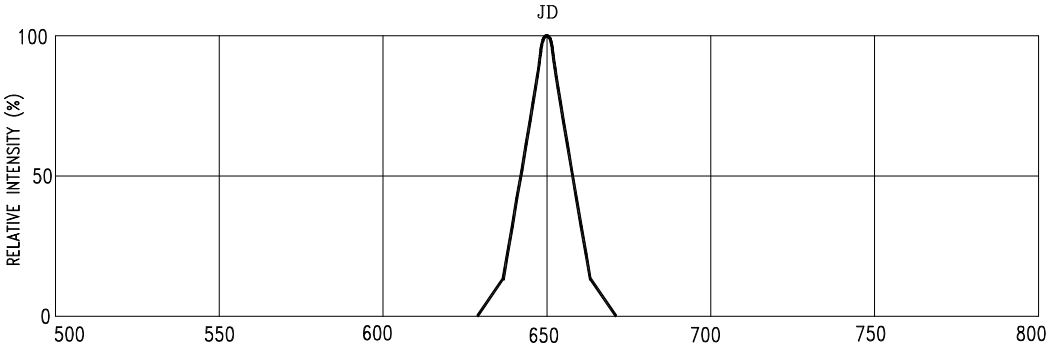


Fig1.Spectral Emission

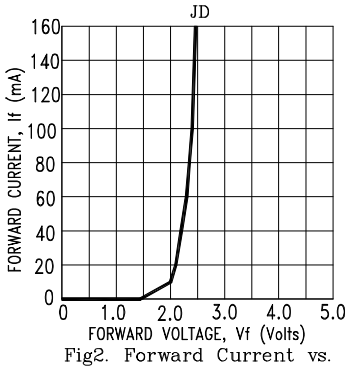


Fig2. Forward Current vs. Forward Voltage

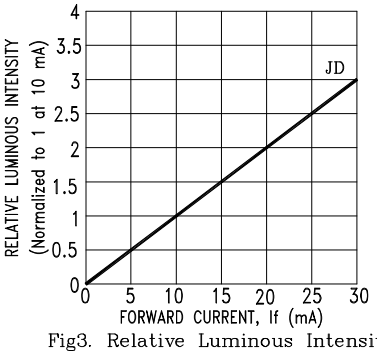


Fig3. Relative Luminous Intensity vs. DC Forward Current

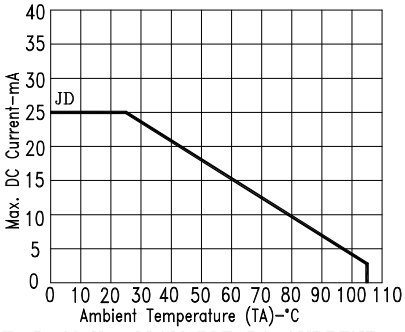


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

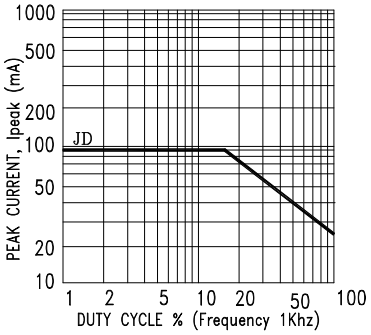


Fig5. Maximum Peak Current vs. Duty Cycle %

NOTE : JD=AlInGaP HYPER RED