

## **FEATURES**

- \* 0.39 inch (10.0 mm) DIGIT HEIGHT.
- \* CONTINUOUS UNIFORM SEGMENTS.
- \* LOW POWER REQUIREMENT.
- \* EXCELLENT CHARACTERS APPEARANCE.
- \* HIGH BRIGHTNESS & HIGH CONTRAST.
- \* WIDE VIEWING ANGLE.
- \* SOLID STATE RELIABILITY.
- \* **LEAD-FREE PACKAGE (ACCORDING TO ROHS).**

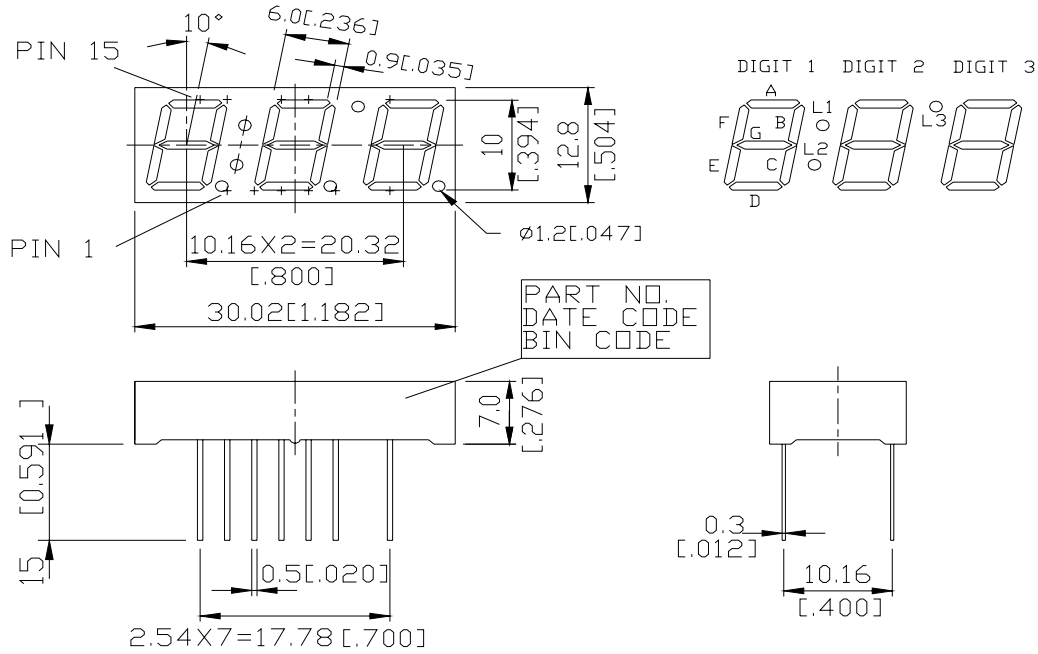
## **DESCRIPTION**

The LTC-4624EWC-J is a 0.39 inch (10.0 mm) digit height triple digit seven-segment display. This device utilizes AlGaAs red LED chips, which are made from AlGaAs on a non-transparent GaAs substrate, and has a gray face and white segments. The AlGaAs red seven segment displays are designed for applications requiring low power consumption. They are tested and selected for the excellent low current characteristics to ensure that the segments are matched at low current. Drive current as low as 1 mA per segment is available. The bin rank will be marked on the device / tube / carton.

## **DEVICE**

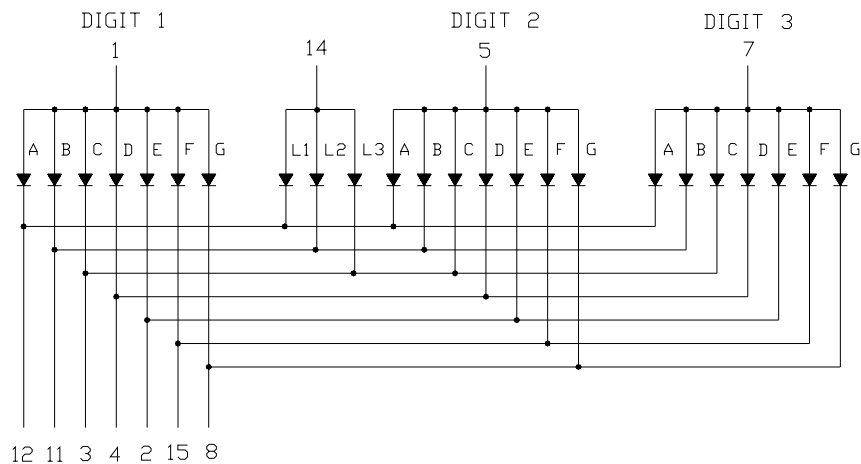
<b>PART NO.</b>	<b>DESCRIPTION</b>
AlGaAs Red	Multiplex Common Anode
LTC-4624EWC-J	Rt. Hand Decimal

## 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  $\pm 0.40$  mm

## INTERNAL CIRCUIT DIAGRAM



**PIN CONNECTION**

<b>No</b>	<b>CONNECTION</b>
1	COMMON ANODE DIGIT 1
2	CATHODE E
3	CATHODE C, L3
4	CATHODE D
5	COMMON ANODE DIGIT 2
6	NO PIN
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	75	mW
Peak Forward Current Per Segment ( 1/10 Duty Cycle, 0.1ms Pulse Width )	125	mA
Continuous Forward Current Per Segment	30	mA
Derating Linear From 25°C Per Segment	0.4	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	
Solder Condition: 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 AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I <sub>v</sub>	200	650		μcd	I <sub>F</sub> =1mA
			3400		μcd	I <sub>F</sub> =5mA
Peak Emission Wavelength	λ <sub>p</sub>		660		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		35		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>		638		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		1.6	2.4	V	I <sub>F</sub> =1mA
			1.7			I <sub>F</sub> =5mA
			1.8			I <sub>F</sub> =20mA
Reverse Current Per Segment	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio (Similar Light Area)	I <sub>v-m</sub>			2:1		I <sub>F</sub> =10mA

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 RANK TABLE

I<sub>F</sub>=1mA

BIN TABLE 2	BIN GRADE			UNIT : ucd
	G	H	J	
	501~800	801~1300	1301~2100	

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

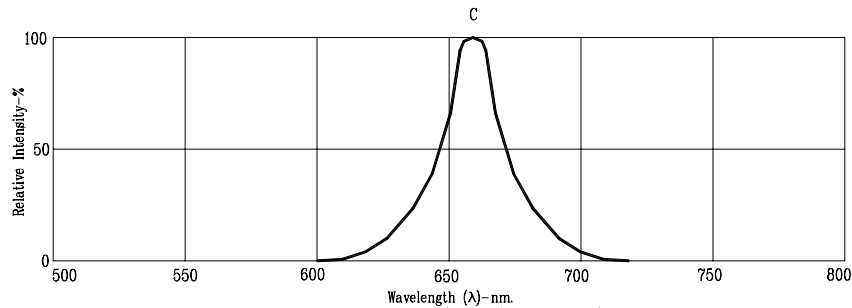


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

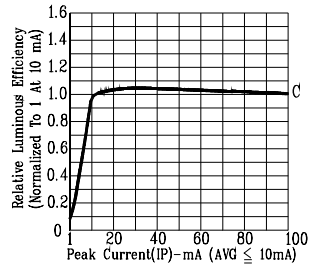


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

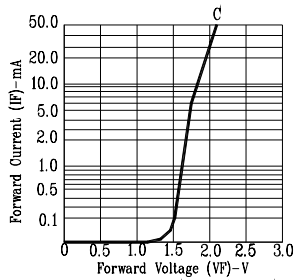


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

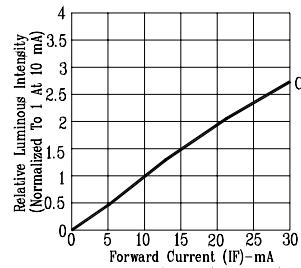


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

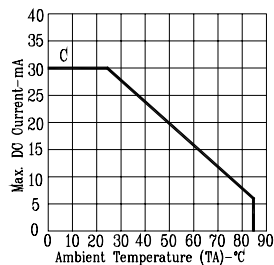


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

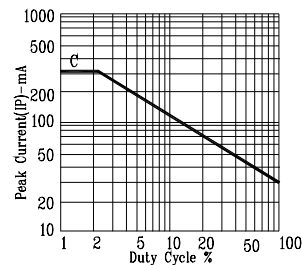
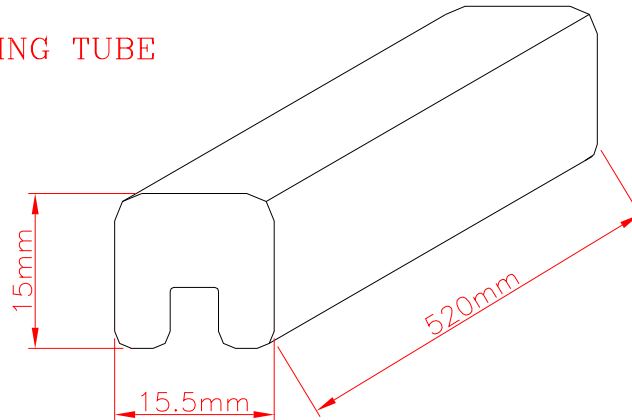


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

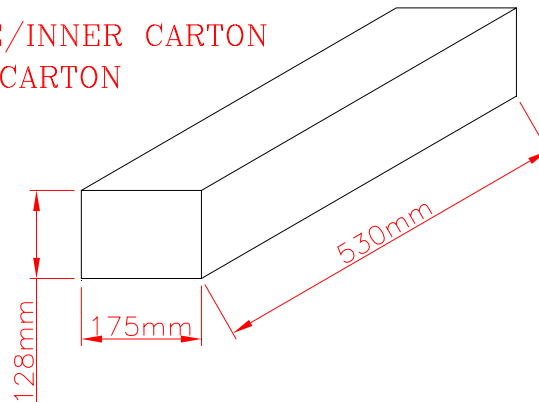
NOTE: C=AIGaAs RED

# THE PACKING SPEC. FOR LTC-4624EWC-J

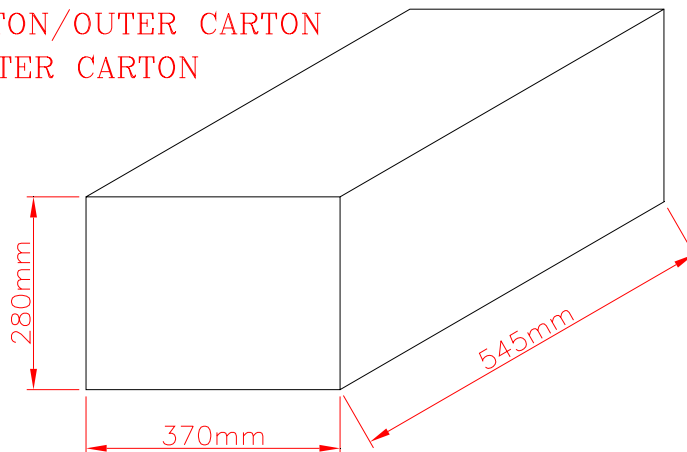
17 PCS/PACKING TUBE



88 PACKING TUBE/INNER CARTON  
1496 PCS/INNER CARTON





4 INNER CARTON/OUTER CARTON  
5984 PCS/OUTER CARTON





**EXAMPLE: The bin rank  
maked on the device / tube / carton.**




ON TUBE

 MADE IN THAILAND 1209077	MATERIAL NO. : LTC - 4624EWC - J	BATCH : G
	QUANTITY : 17	
	CUS. P/N :	MACHINE :
	DATE CODE : 0613	PB FREE <small>2006/03/27 16:12:31 TPND-03</small>

ON INNER CARTON

 MADE IN THAILAND 1209077	MATERIAL NO. : LTC - 4624EWC - J	BATCH : G
	QUANTITY : 1496	
	CUS. P/N :	MACHINE :
	DATE CODE : 0613	PB FREE <small>2006/03/27 16:12:31 TPND-03</small>




**LITEON FINISHED GOODS STOCK LABEL**

TAG NO. : T0257085	
CUSTOMER : SANKYODENSHI BUHIN	
CUS.PART NO. :	
MATERIAL GROUP : O30300CHG	
MATERIAL NO : LTC - 4624EWC - J	
BATCH : G	
QUANTITY : 510	
DATE CODE : 0613	
COMMENT : PBF	SHELF : BA1

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ON OUTER CORTON

**LITEON FINISHED GOODS STOCK LABEL CTN.NO.: 1**

CUSTOMER : SANKYODENSHI BUHIN	
CUSTOMER P/N : N/A	
CUSTOMER P/N :  LTC - 4624EWC - J	
BATCH	QUANTITY
G 	5984 
<b>TOTAL</b>	<b>5984</b>

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**LITEON FINISHED GOODS STOCK LABEL CTN.NO.: 1**

DELIVERY NOTE :	 4100888676
CUSTOMER PO. :	
TYPE OF PACKAGE :	 92 - SUC02
INVOICE NO. :	 0200100908
DATE CODE. :	

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