



**Spec No.: DS30-2000-185** Effective Date: 01/22/2010

Revision: A

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

#### LITE-ON Technology Corp. / Optoelectronics

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# **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.

#### **DESCRIPTION**

The LTC-4627JR is a 0.4 inch (10.0 mm) digit height quadruple digit seven-segment display. This device utilizes AlInGaP super red LED chips, which are made from AlInGaP on a non-transparent GaAs substrate, and has a gray face and white segments.

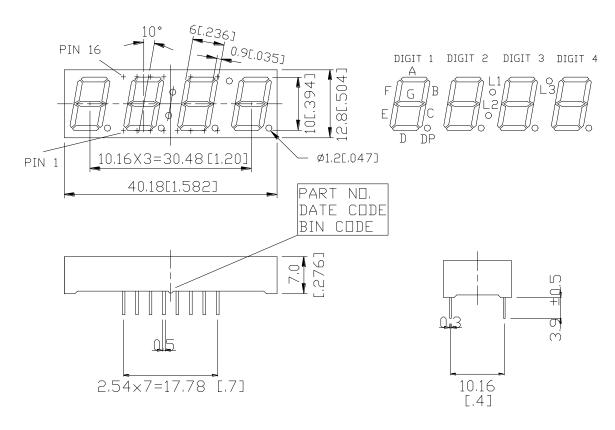
#### **DEVICE**

PART NO.	DESCRIPTION		
AlInGaP Super Red	Multiplex Common Anode		
LTC-4627JR	Rt. Hand Decimal		

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# PACKAGE DIMENSIONS



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

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# INTERNAL CIRCUIT DIAGRAM DIGIT 1 DIGIT 2 DIGIT 3 DIGIT 4 A B C D E F G DP A B C D E F G DP L1 L2 L3 A B C D E F G DP A B C D E F G DP 14 16 13 3 5 11 15 7 PART NO.: LTC-4627JR PAGE: 3 of 6

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# PIN CONNECTION

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

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# ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT	
Power Dissipation Per Segment	70	mW	
Peak Forward Current Per Segment	00		
( 1/10 Duty Cycle, 0.1ms Pulse Width )	90	mA	
Continuous Forward Current Per Segment	25	mA	
Derating Linear From 25°C Per Segment	0.33	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 Temperature: max 260°C for max 3sec at 1.6mm below seating plane.			

# ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	200	650		μcd	I <sub>F</sub> =1mA
Peak Emission Wavelength	λр		639		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		20		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		631		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	$V_{\mathrm{F}}$		2.0	2.6	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	Ir			100	μΑ	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	Iv-m			2:1		I <sub>F</sub> =1mA

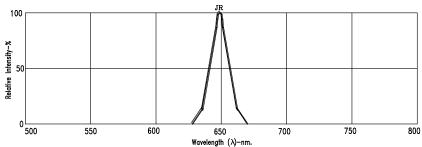
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

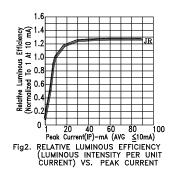
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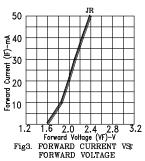
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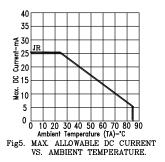
# TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

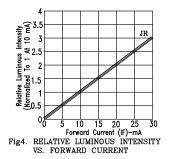
(25°C Ambient Temperature Unless Otherwise Noted)











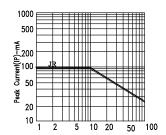


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

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