LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTC-4762HR-01J

Spec No.: DS-30-99-260

Effective Date: 03/18/2008

Revision: B

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURE

* 0.4 INCH (10.0 mm) DIGIT HEIGHT
* LOW POWER REQUIREMENT
* CONTINOUS UNIFORM SEGMENTS.
* EXCELLENT CHARACTERS APPEARANCE.
* HIGH CONTRAST .
* HIGH BRIGHTNESS.
* SOLID STATE REIABILITY.
* CATEGORIZED FOR LUMINOUS INTENSITY.

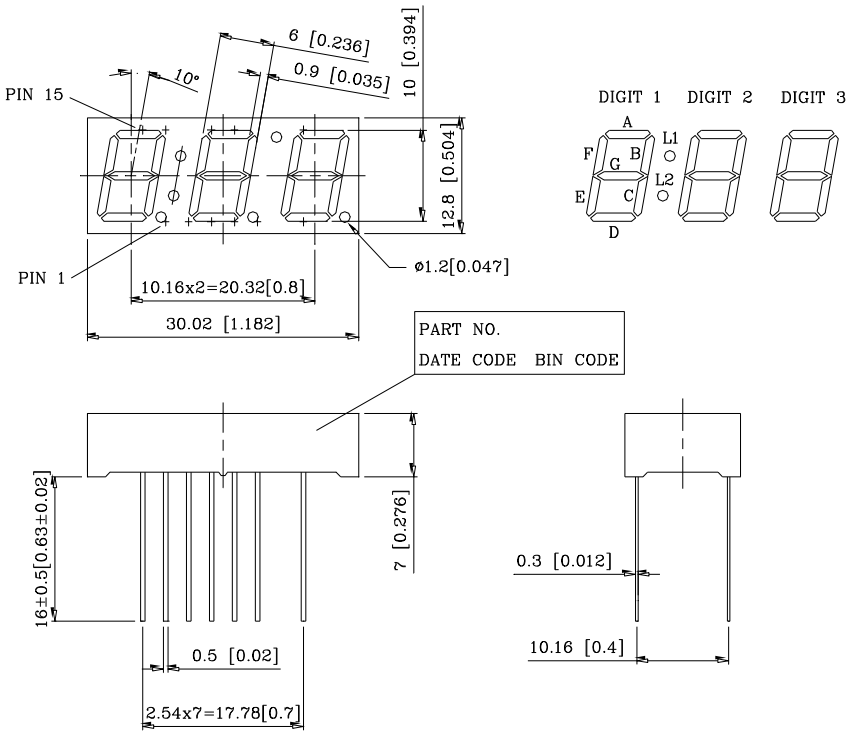
DESCRIPTION

The LTC-4762HR-01J is a 0.4 inch (10.0mm) digit height triple digit display. This device utilizes high efficiency red LED chips which are made from GaAsP on a Gap substrate, and has a black face and red segments.

DEVICE

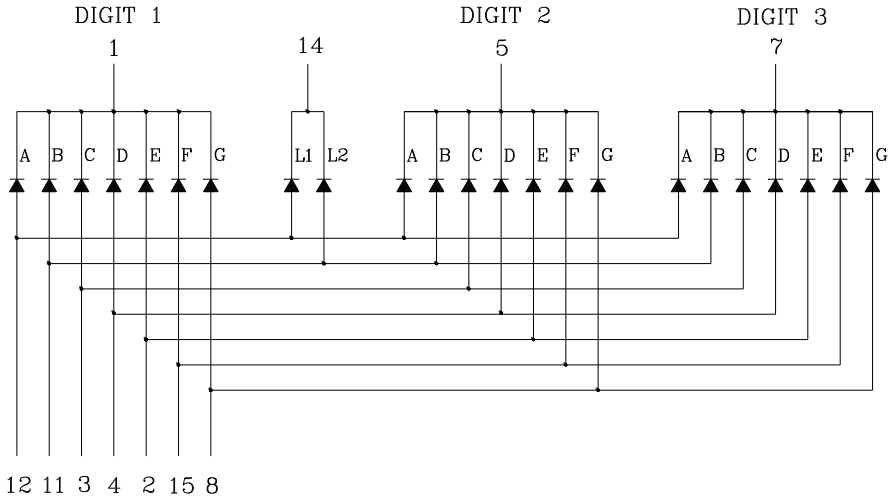
PART NO.	DESCRIPTION
HI-EFF. RED	MULTIPLEX COMMON CATHODE
LTC-4762HR-01J	

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

ABSOLUTE MAXIMUM RATING AT T_A=25°C

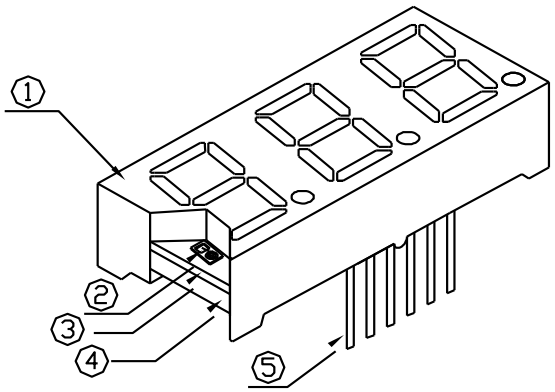
PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current Per Segment Derating Linear From 25°C Per Segment	25 0.33	mA mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-35°C to +85°C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT T_A=25°C

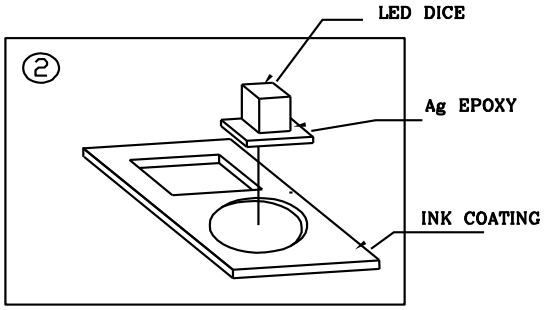
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	800	2200		μcd	I_F=10mA
Peak Emission Wavelength	λp		635		nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$		40		nm	I_F=20mA
Dominant Wavelength	λd		621		nm	I_F=20mA
Forward Voltage. Per Segment	V_F		2.0	2.6	V	I_F=20mA
Reverse Current, Per Segment	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ratio	I_V-m			2:1		I_F=10mA

Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (commision internationale DEL'clariage) eye-response curve.

CROSS SECTION & MATERIAL LIST.



1.Ag CONDUTIVE EPOXY USING
2.ON THE PCB, COATING A LAYER OF INK
FOR CONTROLLING THE Ag EPOXY SCOPE



NO.	Items	Material
1	Reflector	Polycarbonate
2	LED chip	GaAsP on GaP Red
3	PCB	Resion+Glass+Fiber
4	Epoxy	Resin
5	Kovar pin	Cu+Fe+Sn

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

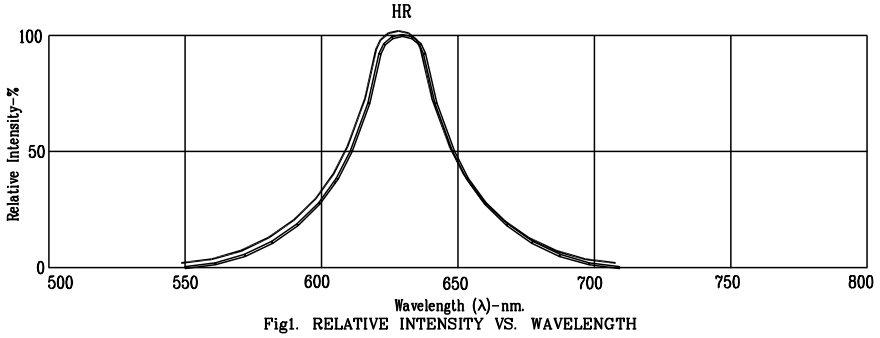


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

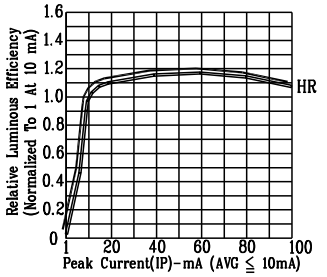


Fig2. RELATIVE LUMINOUS EFFICIENCY (LUMINOUS INTENSITY PER UNIT CURRENT) VS. PEAK CURRENT (REFRESH RATE 1KHz)

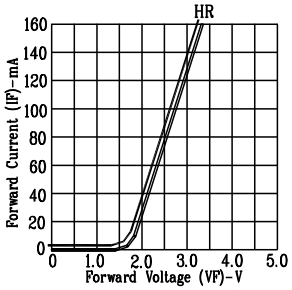


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

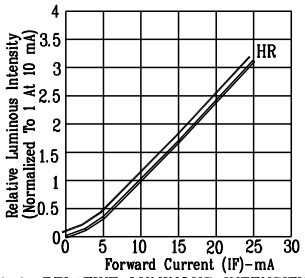


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

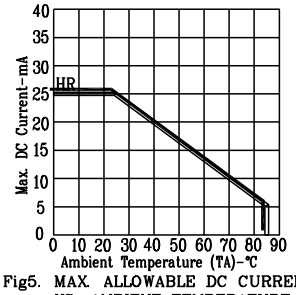


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

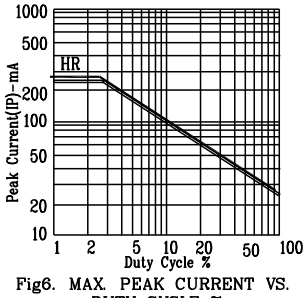


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: HR= HI.－EFF.RED