# Property of Lite-on Only

#### **FEATURES**

- \*0.56-INCH (14.4mm) 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

## **DESCRIPTION**

The LTD-5830HR-10J is a 0.56 inch (14.4 mm) digit height dual digit seven-segment display. This device uses HIGH EFFICIENCY RED LED chips (GaAsP epi on GaP substrate). The display has black face and red segments.

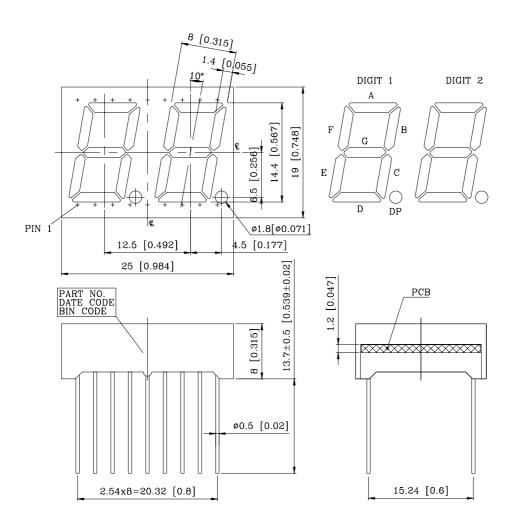
## **DEVICE**

PART NO.	DESCRIPTION
HI-EFF. RED	Common Anode
LTD-5830HR-10J	Rt. Hand Decimal

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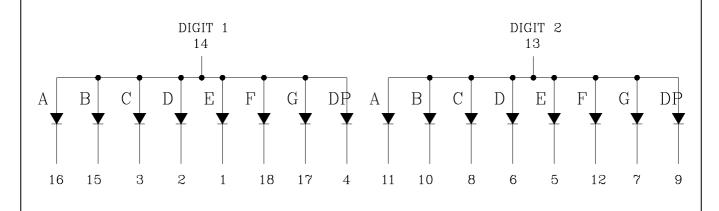
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## **PACKAGE DIMENSIONS**



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

# INTERNAL CIRCUIT DIAGRAM



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# **PIN CONNECTION**

No.	CONNECTION			
1	Cathode E (Digit 1)			
2	Cathode D (Digit 1)			
3	Cathode C (Digit 1)			
4	Cathode DP (Digit 1)			
5	Cathode E (Digit 2)			
6	Cathode D (Digit 2)			
7	Cathode G (Digit 2)			
8	Cathode C (Digit 2)			
9	Cathode DP (Digit 2)			
10	Cathode B (Digit 2)			
11	Cathode A (Digit 2)			
12	Cathode F (Digit 2)			
13	Common Anode (Digit 2)			
14	Common Anode (Digit 1)			
15	Cathode B (Digit 1)			
16	Cathode A (Digit 1)			
17	Cathode G (Digit 1)			
18	Cathode F (Digit 1)			

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## ABSOLUTE MAXIMUM RATING

PARAMETER	MAXIMUM RATING	UNIT		
Power Dissipation Per Segment	75	mW		
Peak Forward Current Per Segment ( Frequency 1Khz, 10% duty cycle )	100*	mA		
Continuous Forward Current Per Segment	25	mA		
Derating Linear From 25 <sup>o</sup> C Per Segment	0.28	mA/ <sup>0</sup> C		
Reverse Voltage Per Segment	5	V		
Operating Temperature Range	$-35^{\circ}$ C to $+105^{\circ}$ C			
Storage Temperature Range	$-35^{\circ}$ C to $+105^{\circ}$ C			
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C				

<sup>\*</sup> see figure 5 to establish pulsed condition

# ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	800	2400		μcd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λр		635		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		40		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		623		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	$V_{\rm F}$		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 (Same Light Area)	Iv-m			2:1		I <sub>F</sub> =10mA

Note: 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (commission international DE L'clariage) eye-response curve.

#### 2. Bin Table

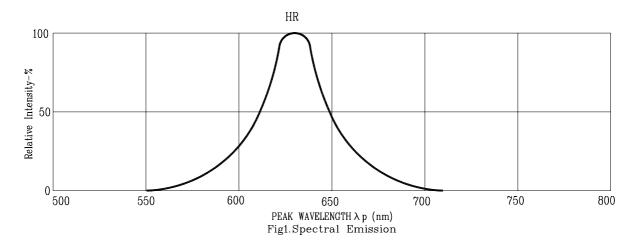
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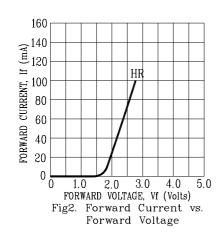
BIN GRADE	K2	L	M
RANGE	2681	3401	5401
	:	:	:
	3400	5400	8600

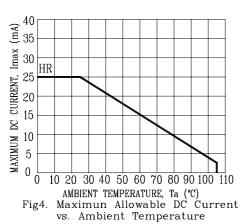
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## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)







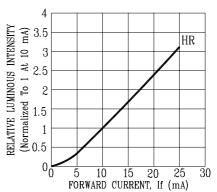
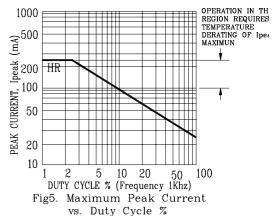


Fig3. Relative Luminous Intensity vs. DC Forward Current



NOTE: HR = HI. - EFF. RED

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