Property of Lite-On Only

FEATURES

- *0.3 inch (7.62 mm) DIGIT HEIGHT
- ***EXCELLENT SEGMENT UNIFORMITY**
- ***LOW POWER REQUIREMENT**
- *HIGH BRIGHTNESS AND HIGH CONTRAST
- *WIDE VIEWING ANGLE
- *** SOLID STATE RELIABILITY**
- *BINNED FOR LUMINOUS INTENSITY

DESCRIPTION

The LSHD-7803 is a 0.3 inch (7.62 mm) digit height single-digit display. This device uses GREEN LED chips (GaP epi on GaP substrate). The display has gray face and green segments.

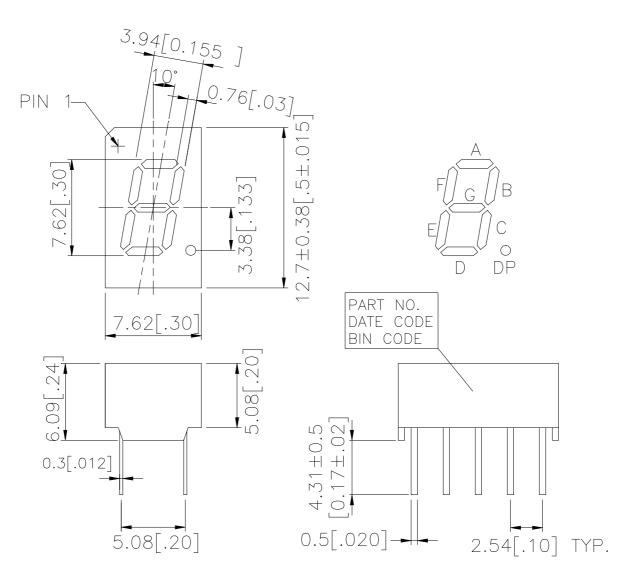
DEVICE

PART NO.	DESCRIPTION				
GREEN	Common Cathode				
LSHD-7803	Rt. Hand Decimal				

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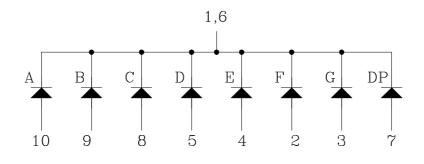
Property of Lite-On Only

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	Common Cathode
2	Anode F
3	Anode G
4	Anode E
5	Anode D
6	Common Cathode
7	Anode DP
8	Anode C
9	Anode B
10	Anode A

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Property of Lite-On Only

ABSOLUTE MAXIMUM RATING AT Ta = 25°C

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				
Forward Current Derating from 25°C	0.28	mA/ ⁰ C				
Reverse Voltage Per Segment	5	V				
Operating Temperature Range	-35° C to $+105^{\circ}$ C					
Storage Temperature Range -35°C to +105°C						
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260 ^o C						

^{*} see figure 5 to establish pulsed condition

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25°C

PARAMETER	SYMBOL	MIN	ТҮР	MAX	UNIT	TEST CONDITION
Average Luminous Intensity Per Segment	Iv	500	1600		μcd	$I_F = 10 \text{mA}$
Peak Emission Wavelength	λр		565		nm	$I_F = 20mA$
Spectral Line Half-Width	Δλ		30		nm	$I_F = 20mA$
Dominant Wavelength	λd		569		nm	$I_F = 20 \text{mA}$
Forward Voltage Per Segment	V_{F}		2.1	2.6	V	$I_F = 20 \text{mA}$
Reverse Current Per Segment	Ir			100	μΑ	$V_R = 5V$
Luminous Intensity Matching Ratio	Iv-m			2:1		$I_F = 10 \text{mA}$

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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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

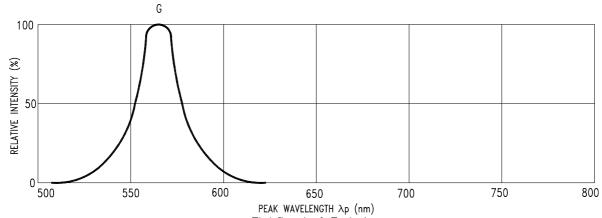
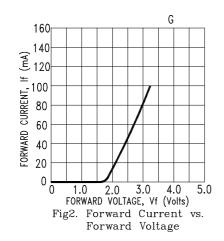
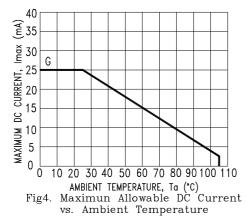


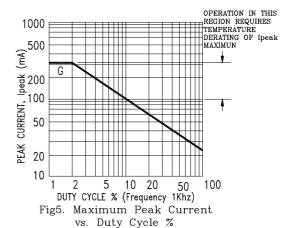
Fig1.Spectral Emission



4 3.5 G 10 15 20 25 FORWARD CURRENT, If (mA)

Fig3. Relative Luminous Intensity vs. DC Forward Current





NOTE: G=GREEN.

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