



Spec No.: DS-30-99-636 Effective Date: 05/20/2000

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

Property of Lite-on Only

FEATURES

- *0.56-INCH (14.22-mm) 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 LTS-5301AP is a 0.56-inch (14.22-mm) digit height single digit seven-segment display. This device utilizes bright red LED chips, which are made from GaP on GaP substrate, and has a gray face and white segments.

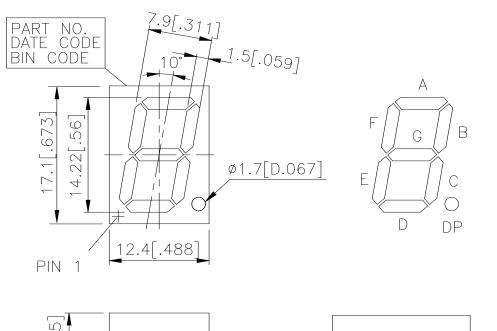
DEVICE

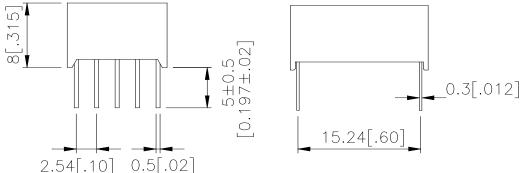
PART NO.	DESCRIPTION
BRIGHT RED	Common Anode
LTS-5301AP	Rt. Hand Decimal

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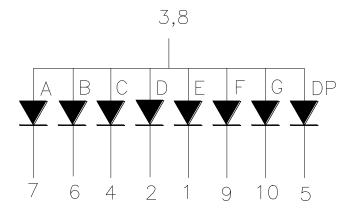
PACKAGE DIMENSIONS





NOTES: All dimensions are in millimeters. Tolerance is \pm 0.25-mm (0.01") unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM



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PIN CONNECTION

No.	CONNECTION
1	CATHODE E
2	CATHODE D
3	COMMON ANODE
4	CATHODE C
5	CATHODE D.P.
6	CATHODE B
7	CATHODE A
8	COMMON ANODE
9	CATHODE F
10	CATHODE G

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ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT			
Power Dissipation Per Segment	40	mW			
Peak Forward Current Per Segment	60				
(1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA			
Continuous Forward Current Per Segment	15	mA			
Derating Linear From 25 ^o C Per Segment	0.20	mA/ ⁰ C			
Reverse Voltage Per Segment	5	V			
Operating Temperature Range	nperature Range -35°C to +85°C				
Storage Temperature Range	-35 ⁰ C to +85 ⁰ C				
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 ^o C					

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	Iv	320	950		μcd	I _F =10mA
Peak Emission Wavelength	λр		697		nm	IF=20mA
Spectral Line Half-Width	Δλ		90		nm	I _F =20mA
Dominant Wavelength	λd		657		nm	I _F =20mA
Forward Voltage Per Segment	VF		2.1	2.6	V	I _F =20mA
Reverse Current Per Segment	Ir			100	μΑ	V _R =5V
Luminous Intensity Matching Ratio	Iv-m			2:1		I _F =10mA

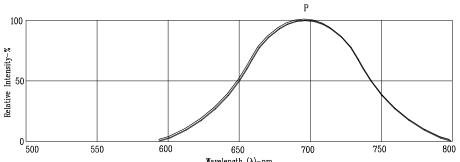
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclariage) eye-response curve.

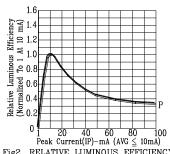
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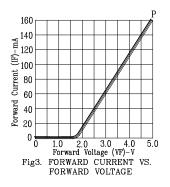
TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

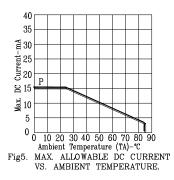
(25°C Ambient Temperature Unless Otherwise Noted)





0 1 20 40 60 80 100
Peak Current(IP)-mA (AVG ≤ 10mA)
Fig2. RELATIVE LUMINOUS EFFICIENCY
(LUMINOUS INTENSITY PER UNIT
CURRENT) VS. PEAK CURRENT
(REFRESH RATE 1KHz)





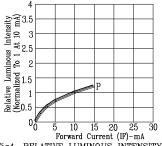


Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

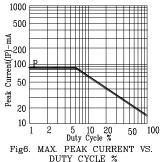


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)

NOTE: P=BRIGHT RED

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