



**Spec No.: DS-30-98-058** Effective Date: 06/09/2010

Revision: A

**LITE-ON DCC** 

**RELEASE** 

BNS-OD-FC001/A4

### Property of Lite-On Only

### **FEATURES**

- \*0.52 inch (13.2 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-546AE is a 0.52 inch (13.2 mm) digit height single digit seven-segment display. This device utilizes red orange LED chips, which are made from GaAsP on a transparent GaP substrate, and has a gray face and white segments.

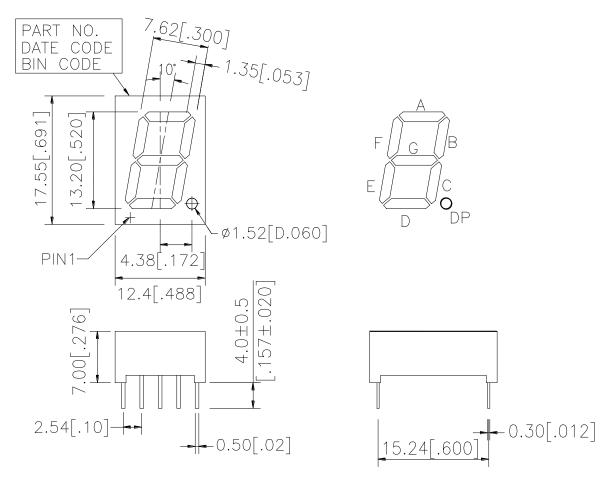
### **DEVICE**

PART NO.	DESCRIPTION			
Red Orange	Common Anode			
LTS-546AE	Rt. Hand Decimal			

PART NO.: LTS-546AE PAGE: 1 of 5

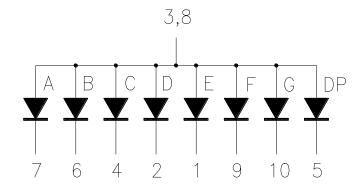
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### **PACKAGE DIMENSIONS**



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

### INTERNAL CIRCUIT DIAGRAM



PART NO.: LTS-546AE PAGE: 2 of 5

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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

PART NO.: LTS-546AE PAGE: 3 of 5

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### ABSOLUTE MAXIMUM RATING AT Ta=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	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	800	2200		μcd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λр		630		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	Δλ		40		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		621		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	VF		2	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> =10mA

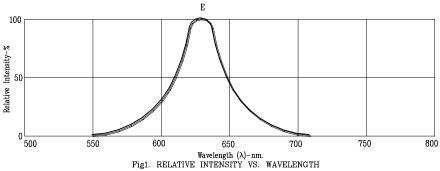
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

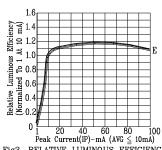
PART NO.: LTS-546AE PAGE: 4 of 5

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### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

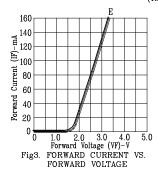
(25°C Ambient Temperature Unless Otherwise Noted)



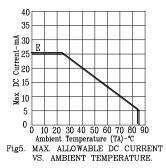


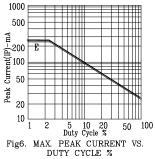
Peak Current(IP)-mA (AVG \( \) 10mA)

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



ous Intensity
1 At 10 mA) Forward Current (IF)-mA
Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT





(REFRESH RATE 1KHz)

NOTE: E=RED ORANGE

PART NO.: LTS-546AE PAGE: 5 of 5

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**Authorized Distributor** 

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Lite-On: