LITEON®
OPTOELECTRONICS

LED Display

Product Data Sheet

LTA-151CB

Spec No.: DS30-2006-140

Effective Date: 09/09/2006

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURES

∗LARGE, BRIGHT, UNIFORM LIGHT EMITTING AREAS.
∗LOW POWER REQUIREMENT.
∗EXCELLENT ON-OFF CONTRAST.
∗CAN BE USED WITH PANEL AND LEGEND MOUNT.
∗WIDE VIEWING ANGLE.
∗SOLID STATE RELIABILITY.
∗**LEAD-FREE PACKAGE(ACCORDING TO ROHS)**

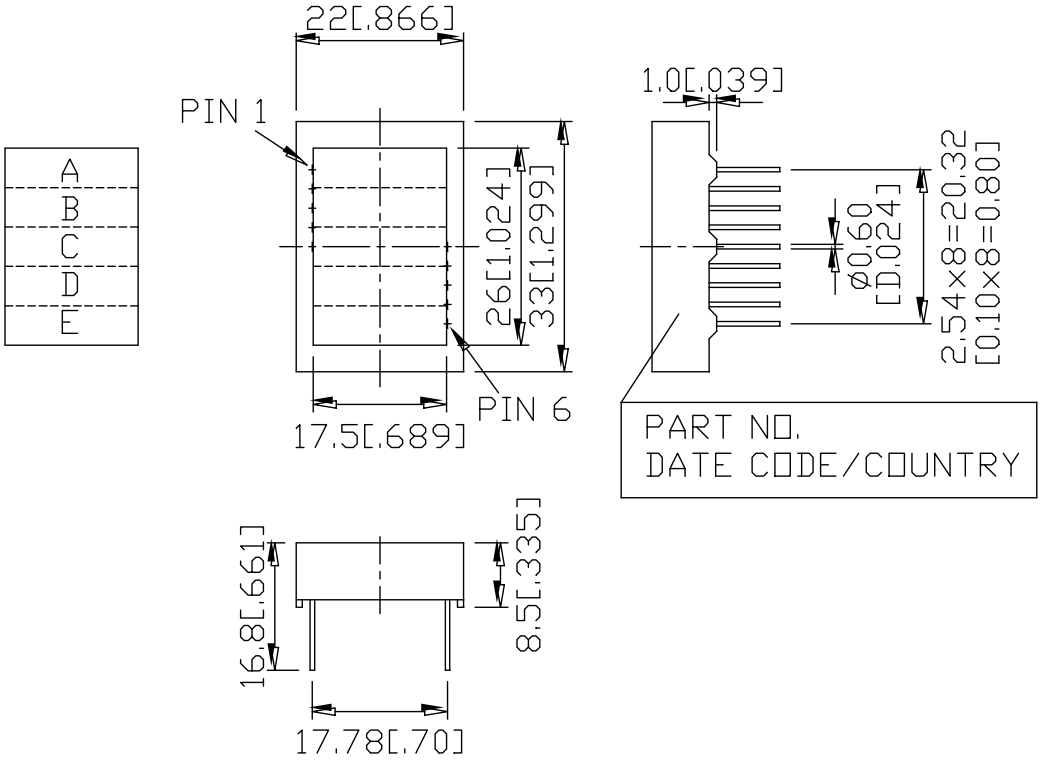
DESCRIPTION

The LTA-151CB is a rectangular bar array light source display, designed for a variety of applications where a large bright source of light is required. This device utilizes InGaN blue LED chips (GaN epi on SiC substrate). The display has gray face and white segments

DEVICE

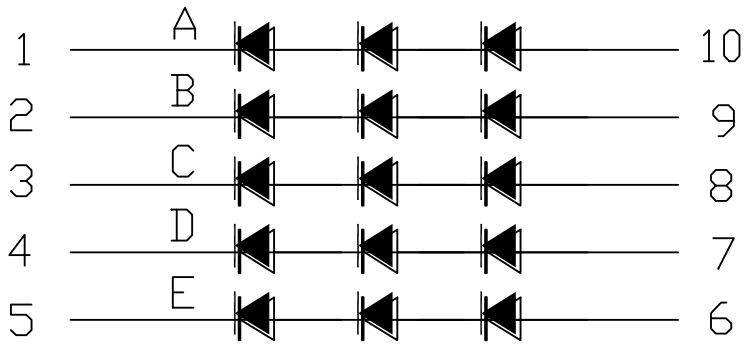
PART NO.	DESCRIPTION
InGaN BLUE	Universal
LTA-151CB	Rectangular Bar

PACKAGE DIMENSIONS



NOTES: 1. All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise note.
2. Pin tip's shift tolerance is ± 0.4 mm.

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation one serial of three dice	70	mW
Peak Forward Current Per Chip (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current Per Chip Derating Linear From 25℃ Per Chip	30 0.4	mA mA/℃
Reverse Voltage Per Chip	5	V
Operating Temperature Range	-35℃ to +105℃	
Storage Temperature Range	-35℃ to +105℃	
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°C or of temperature unit (during assembly) not over max temperature rating above.		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°CPARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity Per Bar	I_V	5400	9000		μcd	I_F=10mA
Peak Emission Wavelength	λp		468		nm	I_F=20mA
Spectral Line Half-Width	Δλ		25		nm	I_F=20mA
Dominant Wavelength	λd		470		nm	I_F=20mA
Forward Voltage, any Chip	V_F		9.9	11.4	V	I_F=20mA
Reverse Current, any Chip	I_R			100	μA	V_R=5V
Luminous Intensity Matching Ration (Similar Light Area)	Iv-m			2:1		If=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.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

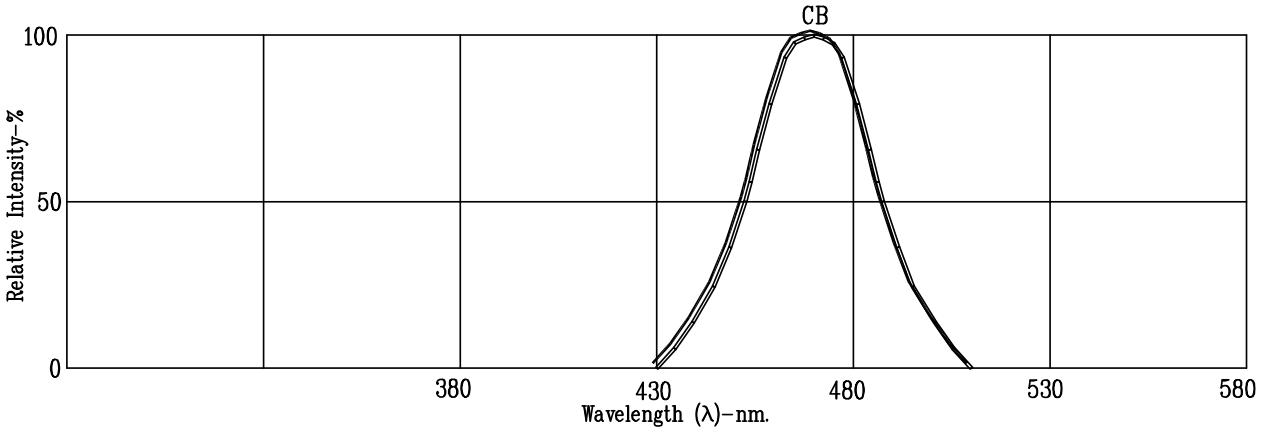


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

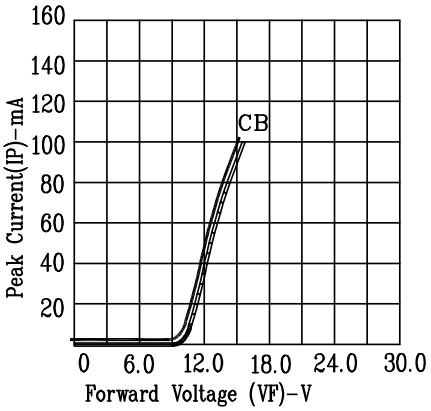


Fig2. FORWARD CURRENT VS. FORWARD VOLTAGE

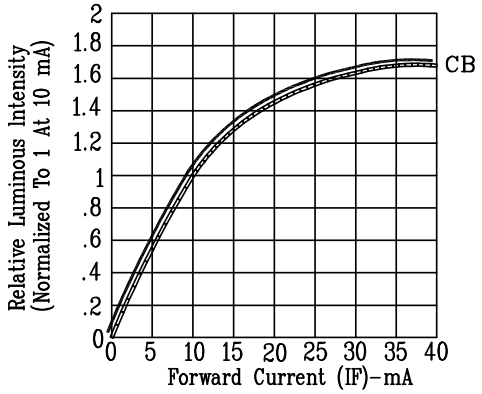


Fig3. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

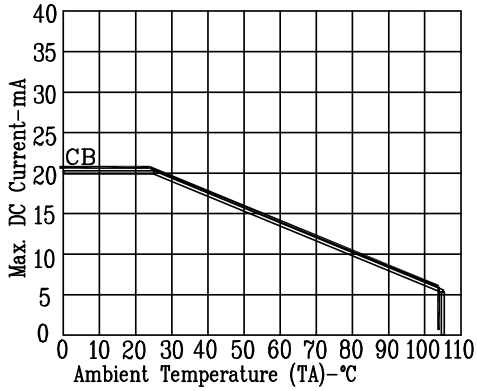


Fig4. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

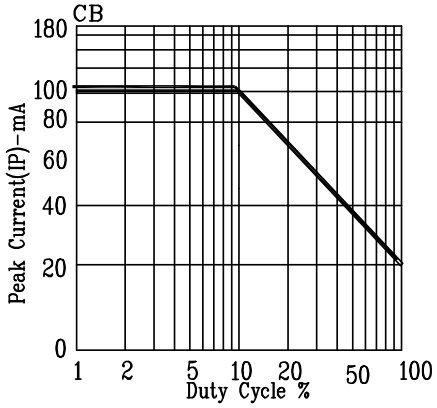


Fig5. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: CB=InGaN Blue