



LED Display Product Data Sheet LTA-171CB

Spec No.: DS30-2006-141

Effective Date: 09/20/2006

Revision: -

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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.
- * CATEGORIZED FOR LIGHT OUTPUT.
- * **LEAD-FREE PACKAGE (ACCORDING TO ROHS)**

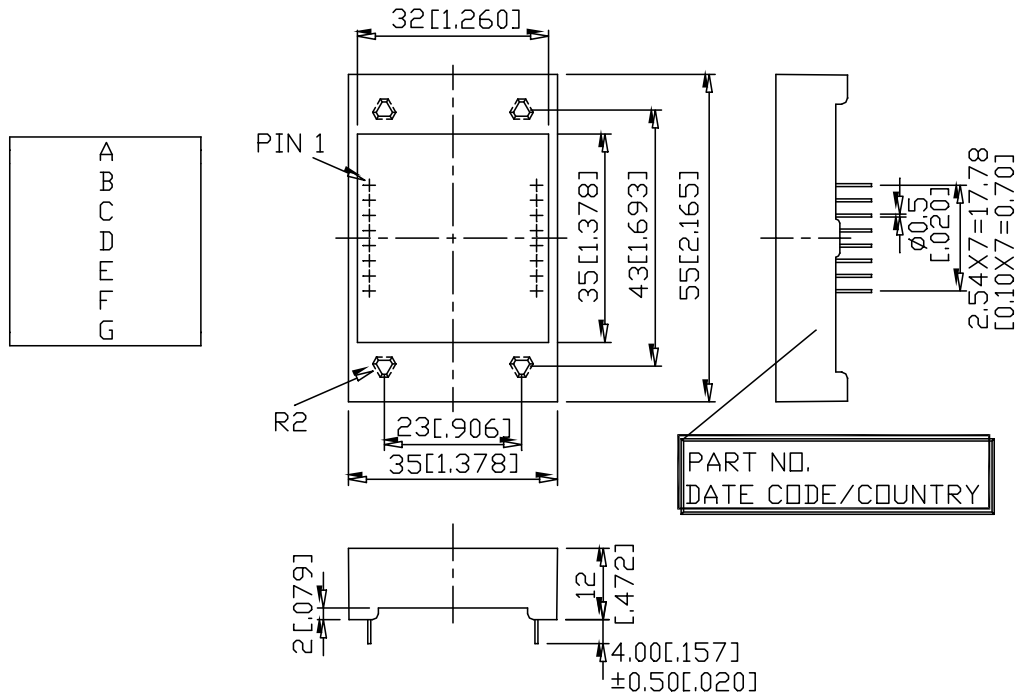
DESCRIPTION

The LTA-171CB 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 Blue LED chips, which are made from InGaN on Sic substrate and has gray face and white segments

DEVICE

PART NO.	DESCRIPTION
InGaN BLUE	DIRECT DRIVE
LTA-171CB	

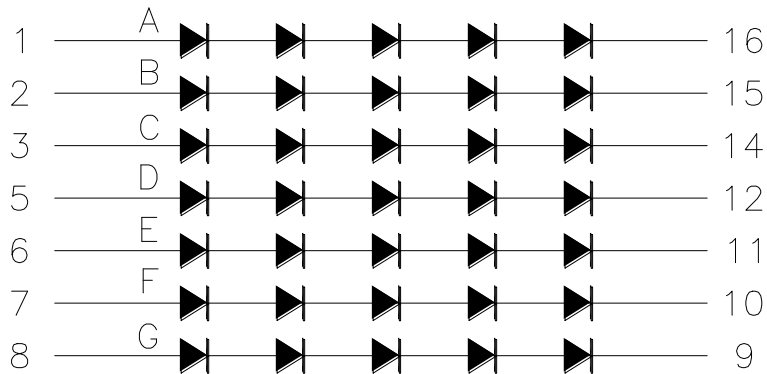
PACKAGE DIMENSIONS



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	ANODE A
2	ANODE B
3	ANODE C
4	NO CONNECTION
5	ANODE D
6	ANODE E
7	ANODE F
8	ANODE G
9	CATHODE G
10	CATHODE F
11	CATHODE E
12	CATHODE D
13	NO CONNECTION
14	CATHODE C
15	CATHODE B
16	CATHODE A

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment (Frequency 1Khz, 10% duty cycle)	100	mA
Continuous Forward Current Per Segment	30	mA
Derating Linear From 25°C Per Segment	0.4	mA/°C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +105°C	
Storage Temperature Range	-35°C to +105°C	
Soldering Conditions : 1/16 inch below seating plane for 3 seconds at 260 ⁰ C, or temperature of unit (during assembly) not over max. temperature rating above		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity Per Bar	I _v	13700	30507		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		468		nm	I _F =20mA
Spectral Line Half-Width	Δλ		25		nm	I _F =20mA
Dominant Wavelength	λ _d		470		nm	I _F =20mA
Forward Voltage, Per Bar	V _F		16.5	19.0	V	I _F =20mA
Reverse Current, Per Bar	I _R			100	μA	V _R =25V
Luminous Intensity Matching Ration (Similar Light Area)	I _v -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'Eclairage) eye-response curve.

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

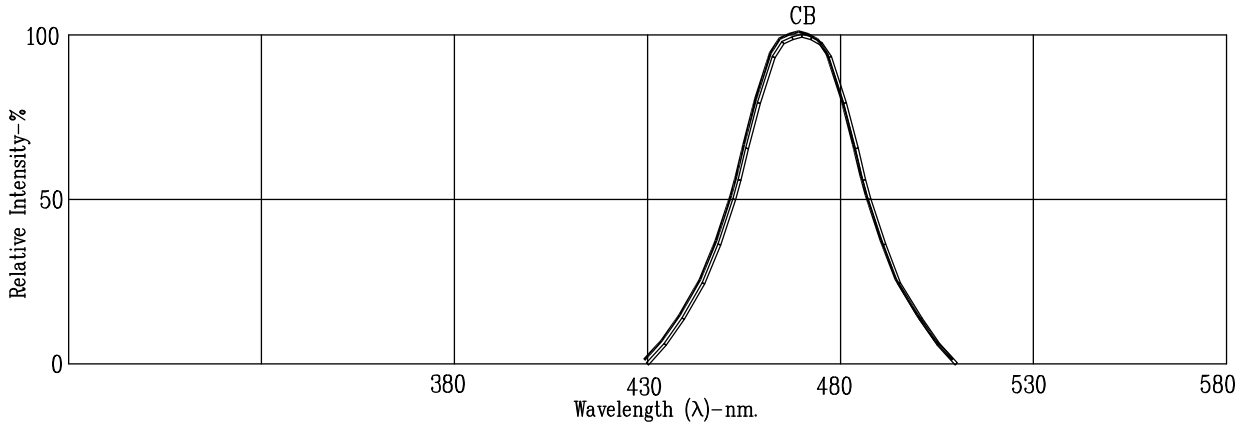


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

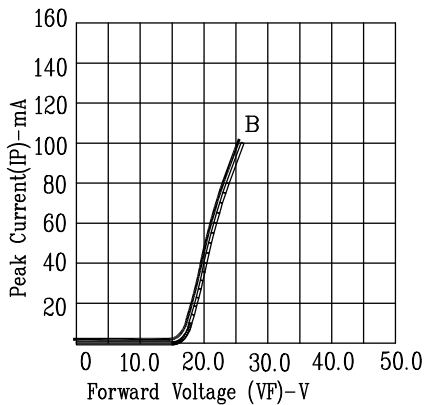


Fig2. FORWARD CURRENT VS. FORWARD VOLTAGE

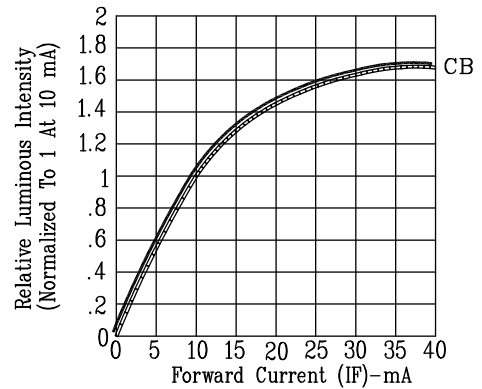


Fig3. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

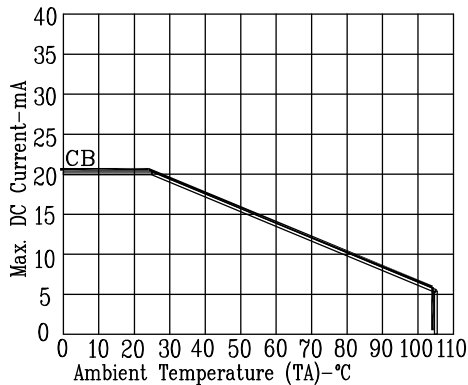


Fig4. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

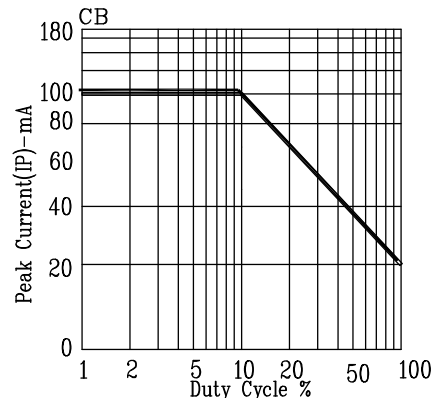


Fig5. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)

NOTE: CB=InGaN Blue