



LED Display

Product Data Sheet

LTD-5523AB

Spec No.: DS30-2000-372

Effective Date: 10/19/2001

Revision: A

LITE-ON DCC

RELEASE

BNS-OD-FC001/A4

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FEATURES

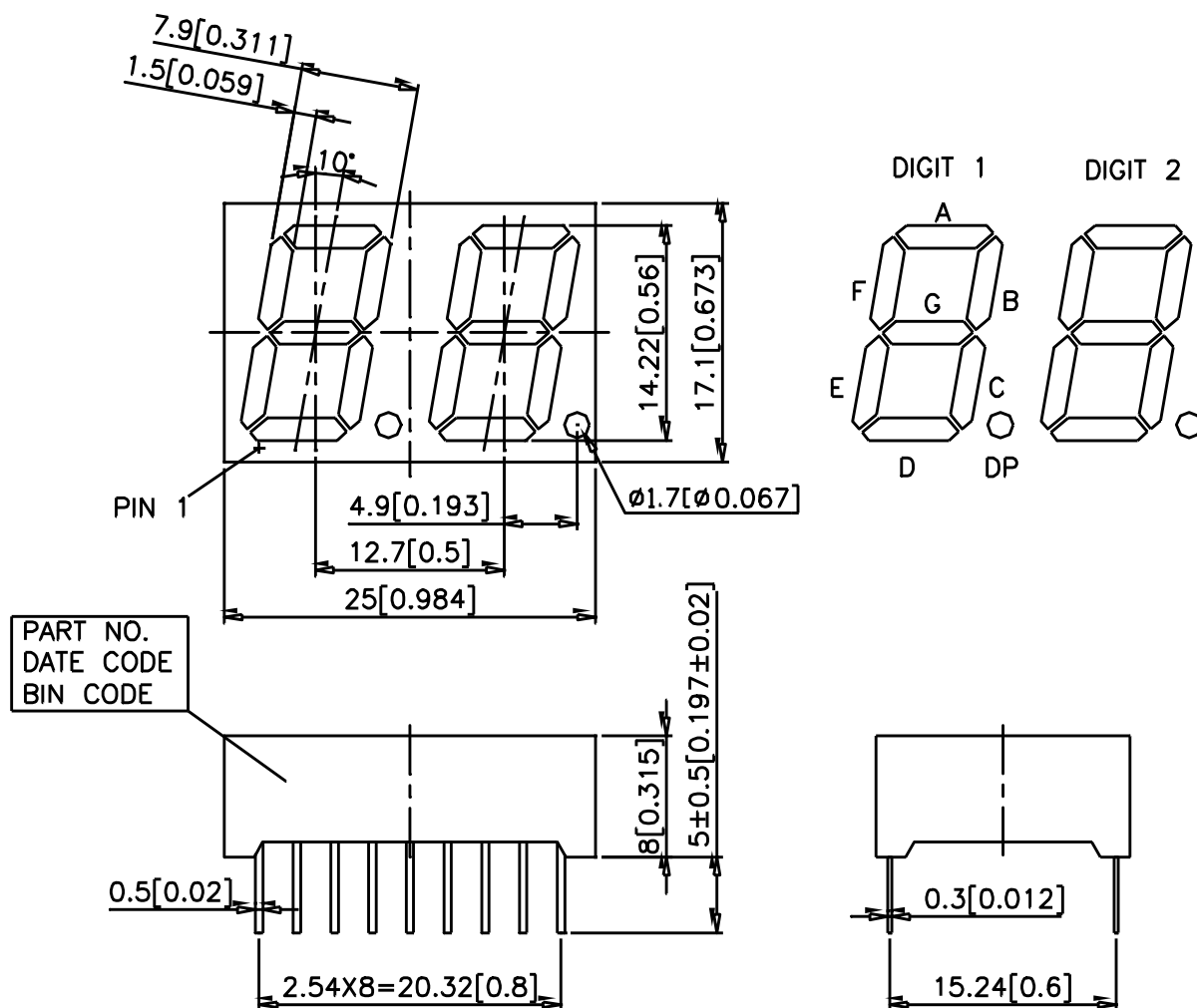
- * 0.56 inch (14.22 mm) DIGIT HEIGHT
- * CONTINUOUS UNIFORM SEGMENTS
- * LOW POWER REQUIREMENT
- * EXCELLENT CHARACTERS APPEARANCE
- * HIGH BRIGHTNESS & HIGH CONTRAST
- * WIDE VIEWING ANGLE
- * SOLID STATE RELIABILITY
- * CATEGORIZED FOR LUMINOUS INTENSITY

DESCRIPTION

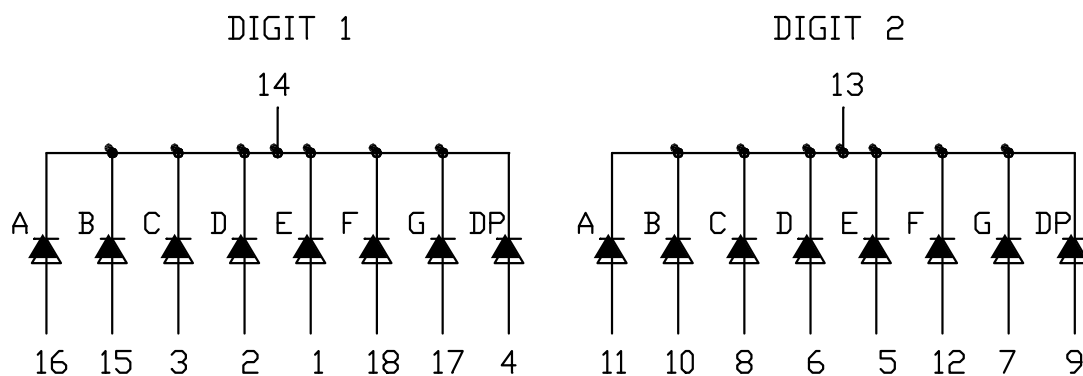
The LTD-5523AB is a 0.56 inch (14.22 mm) digit height dual digit seven-segment display. The device utilizes blue chips, which are made from GaN on a SiC substrate, and has a gray face and white segments.

DEVICE

PART NO	DESCRIPTION
BLUE	COMMON CATHODE RT. HAND DECIMAL
LTD-5523AB	

PACKAGE DIMENSIONS


NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM


PIN CONNECTION

No.	CONNECTION
1	ANODE E (DIGIT 1)
2	ANODE D (DIGIT 1)
3	ANODE C (DIGIT 1)
4	ANODE DP (DIGIT 1)
5	ANODE E (DIGIT 2)
6	ANODE D (DIGIT 2)
7	ANODE G (DIGIT 2)
8	ANODE C (DIGIT 2)
9	ANODE DP (DIGIT 2)
10	ANODE B (DIGIT 2)
11	ANODE A (DIGIT 2)
12	ANODE F (DIGIT 2)
13	COMMON CATHODE (DIGIT 2)
14	COMMON CATHODE (DIGIT 1)
15	ANODE B (DIGIT 1)
16	ANODE A (DIGIT 1)
17	ANODE G (DIGIT 1)
18	ANODE F (DIGIT 1)

ABSOLUTE MAXIMUM RATING AT Ta=25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	95	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	60	mA
Continuous Forward Current Per Segment	25	mA
Derating Linear From 25 ⁰ C Per Segment	0.33	mA/ ⁰ C
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35 ⁰ C to +85 ⁰ C	
Storage Temperature Range	-35 ⁰ C to +85 ⁰ C	
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260 ⁰ C		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I _v	1300	4300		μcd	I _F =10mA
Peak Emission Wavelength	λ _p		428		nm	I _F =20mA
Spectral Line Half-Width	Δλ		65		nm	I _F =20mA
Dominant Wavelength	λ _d		466		nm	I _F =20mA
Forward Voltage Per Segment	V _F		3.8	4.5	V	I _F =20mA
Reverse Current Per Segment	I _R			100	μA	V _R =5V
Luminous Intensity Matching Ratio	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)

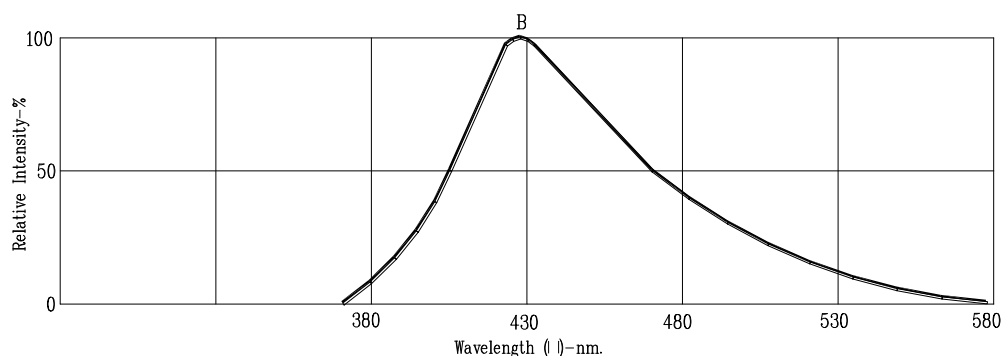


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

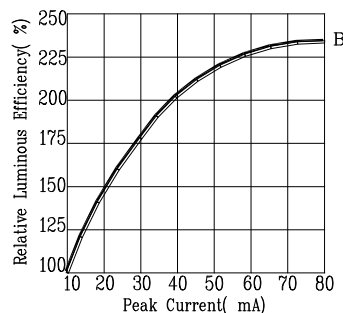


Fig2. RELATIVE LUMINOUS EFFICIENCY
VS. PEAK FORWARD CURRENT
(250us pulse width; 2ms period)

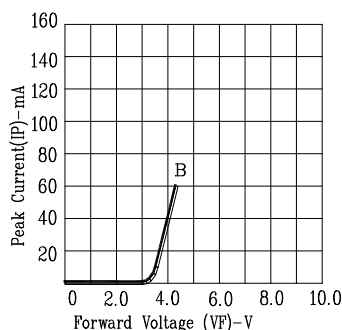


Fig3. FORWARD CURRENT VS.
FORWARD VOLTAGE

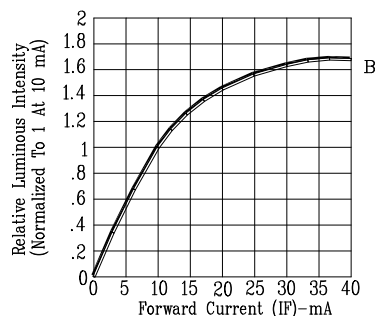


Fig4. RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

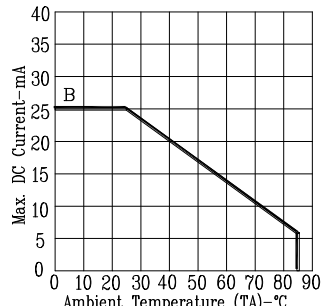


Fig5. MAX. ALLOWABLE DC CURRENT
VS. AMBIENT TEMPERATURE.

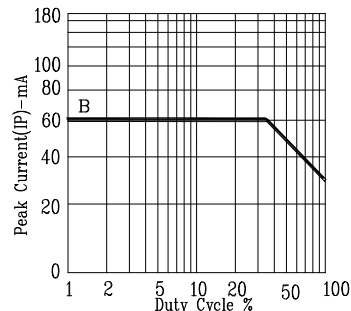


Fig6. MAX. PEAK CURRENT VS.
DUTY CYCLE %
(REFRESH RATE 1KHz)