

**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.

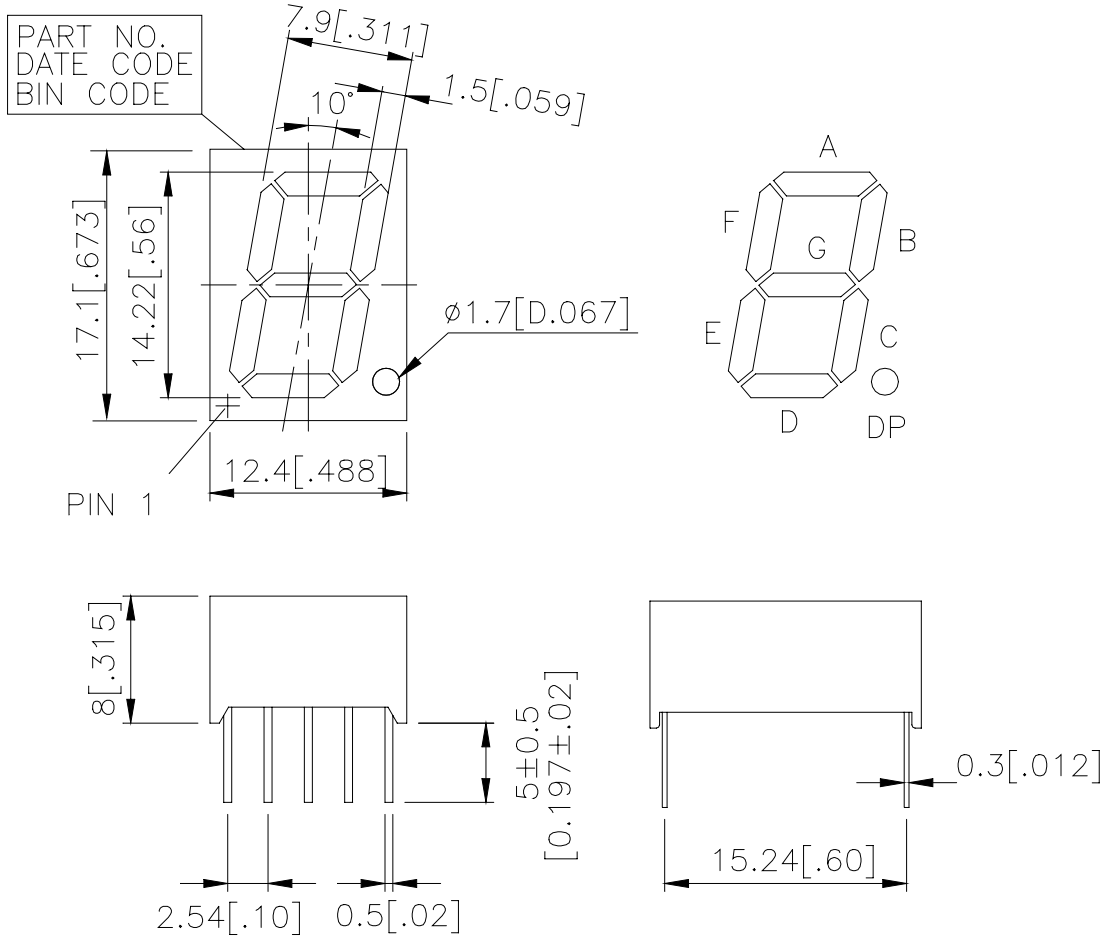
**DESCRIPTION**

The LTS-5501AB is a 0.56 inch (14.22 mm) digit height single digit display. This device utilizes blue LED chips which are made from GaN on a SiC substrate, and has a gray face and white segments.

**DEVICE**

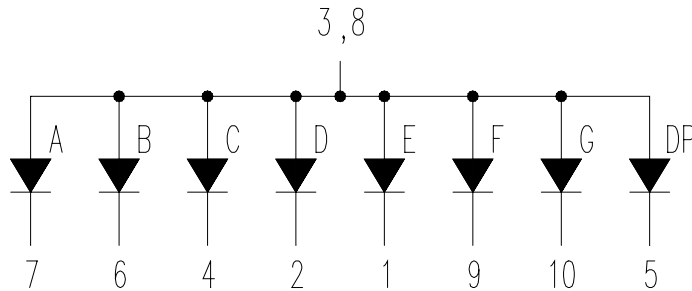
| <b>PART NO.</b> | <b>DESCRIPTION</b> |
|-----------------|--------------------|
| BLUE            | COMMON ANODE       |
| LTS-5501AB      | RT. HAND DECIMAL   |

**PACKAGE DIMENSIONS**



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

**INTERNAL CIRCUIT DIAGRAM**



**PIN CONNECTION**

| <b>No.</b> | <b>CONNECTION</b> |
|------------|-------------------|
| 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         |

**ABSOLUTE MAXIMUM RATING AT Ta=25°C**

| PARAMETER  | MAXIMUM RATING | UNIT  |
|--|----------------|-------|
| Power Dissipation Per Segment  | 115            | mW    |
| Peak Forward Current Per Segment<br>( 1/10 Duty Cycle, 0.1ms Pulse Width ) | 60             | 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 1/16 inch Below Seating Plane for 3 Seconds at 260°C    |                |       |

**ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta=25°C**

| PARAMETER                         | SYMBOL            | MIN. | TYP. | MAX. | UNIT | TEST CONDITION       |
|-----------------------------------|-------------------|------|------|------|------|----------------------|
| Average Luminous Intensity        | I <sub>v</sub>    | 1300 | 4300 |      | μcd  | I <sub>F</sub> =10mA |
| Peak Emission Wavelength          | λ <sub>p</sub>    |      | 428  |      | nm   | I <sub>F</sub> =20mA |
| Spectral Line Half-Width          | Δλ                |      | 65   |      | nm   | I <sub>F</sub> =20mA |
| Dominant Wavelength               | λ <sub>d</sub>    |      | 466  |      | nm   | I <sub>F</sub> =20mA |
| Forward Voltage Per Segment       | V <sub>F</sub>    |      | 3.8  | 4.5  | V    | I <sub>F</sub> =20mA |
| Reverse Current Per Segment       | I <sub>R</sub>    |      |      | 100  | μA   | V <sub>R</sub> =5V   |
| Luminous Intensity Matching Ratio | I <sub>v</sub> -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.

## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

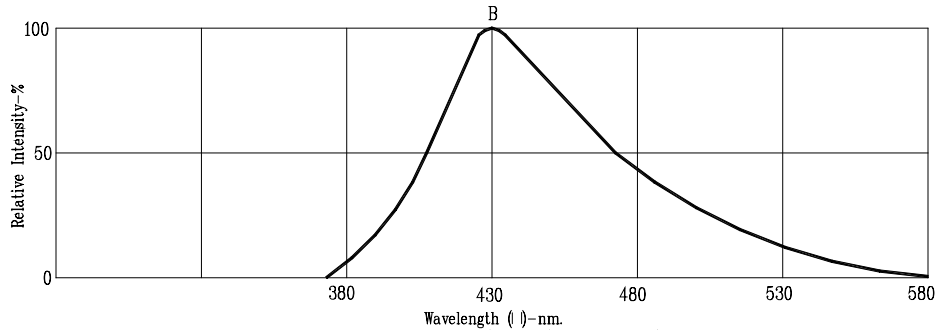


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

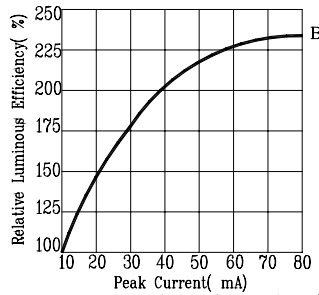


Fig2. RELATIVE LUMINOUS EFFICIENCY VS. PEAK FORWARD CURRENT (250us pulse width; 2ms period)

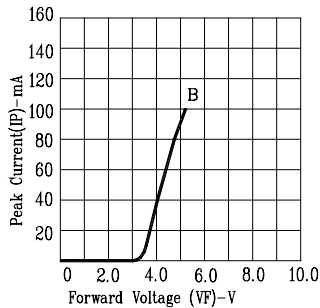


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

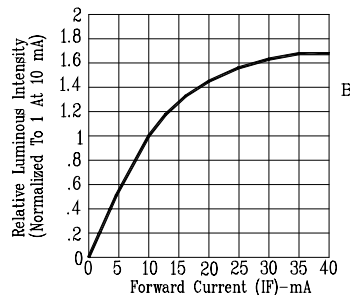


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

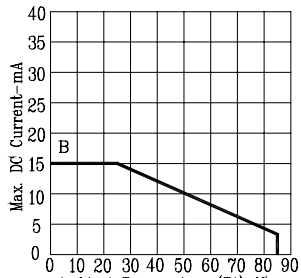


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

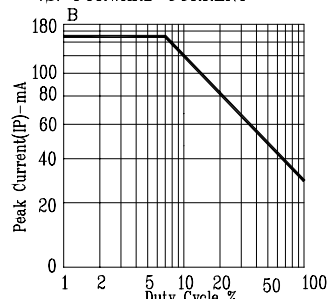


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)