

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

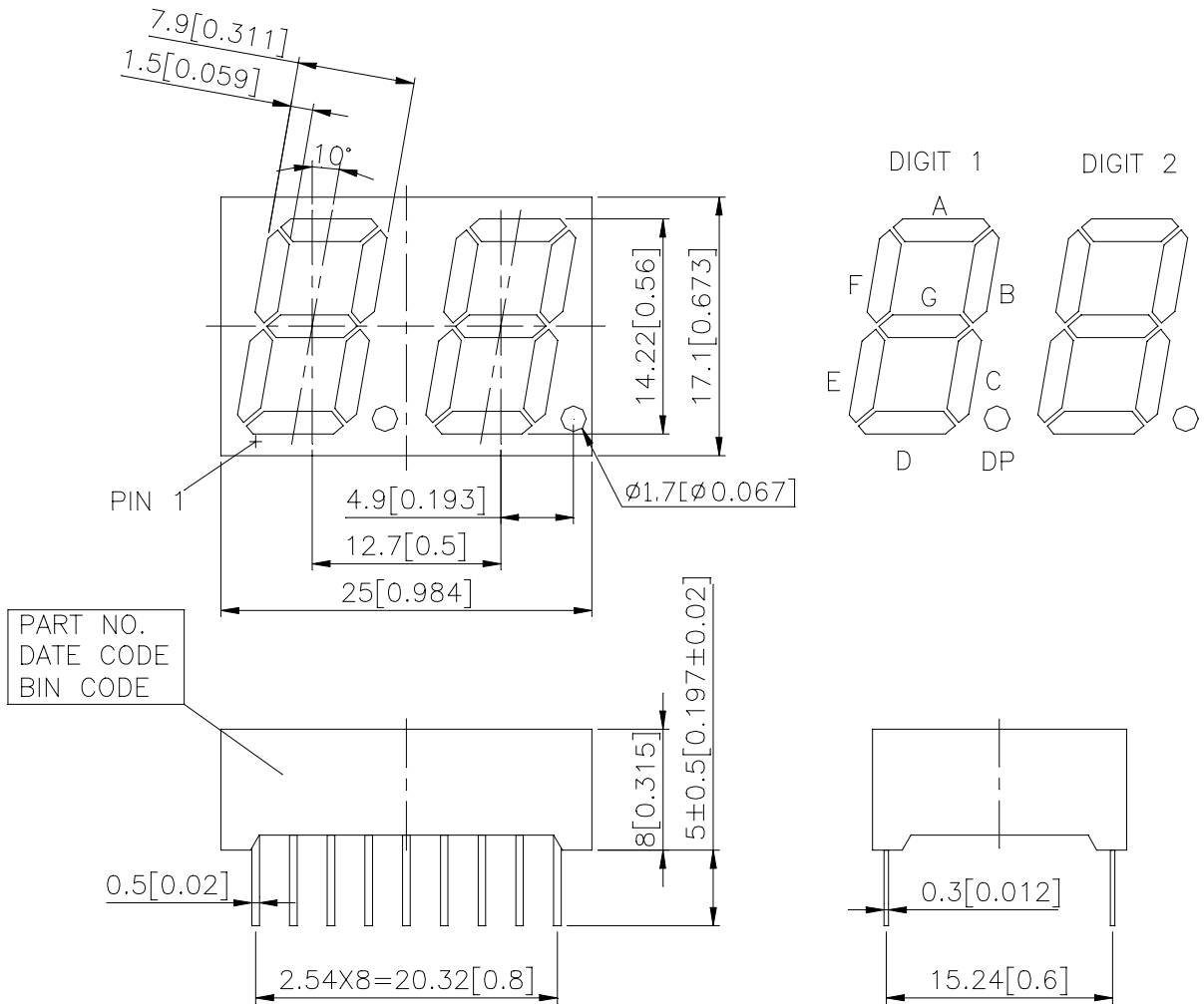
DESCRIPTION

The LTD-5521AB 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

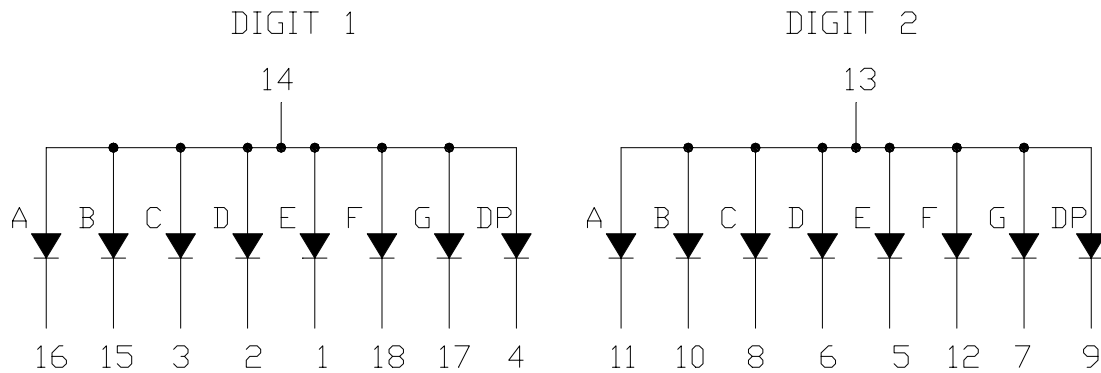
| PART NO | DESCRIPTION |
|----------------|--------------------|
| BLUE | COMMON ANODE |
| LTD-5521AB | RT. HAND DECIMAL |

PACKAGE DIMENSIONS



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

INTERNAL CIRCUIT DIAGRAM



PIN CONNECTION

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

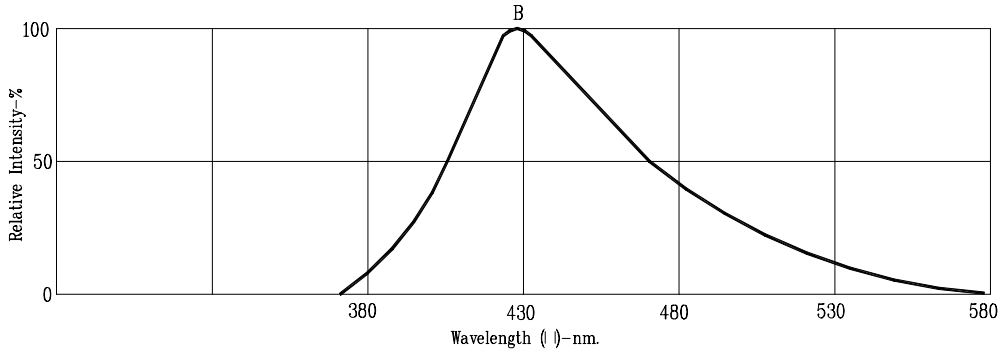


Fig1. RELATIVE INTENSITY VS. WAVELENGTH

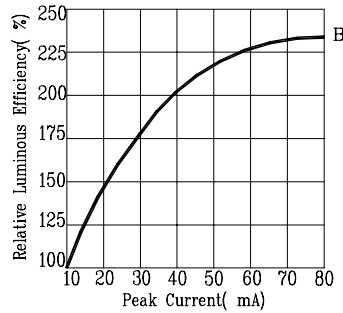


Fig2. RELATIVE LUMINOUS EFFICIENCY VS. PEAK FORWARD CURRENT (250us pulse width; 2ms period)

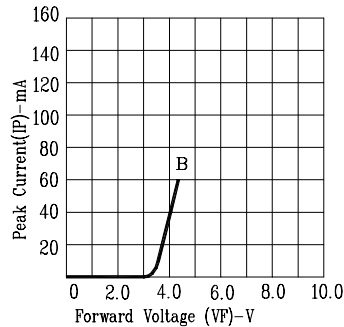


Fig3. FORWARD CURRENT VS. FORWARD VOLTAGE

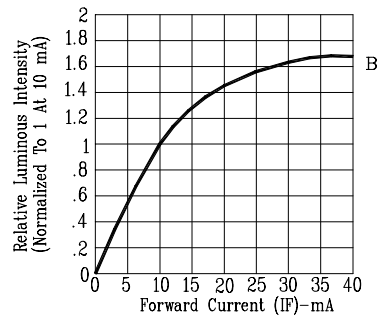


Fig4. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

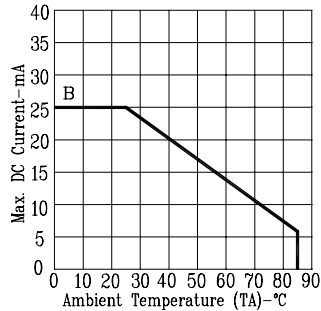


Fig5. MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE.

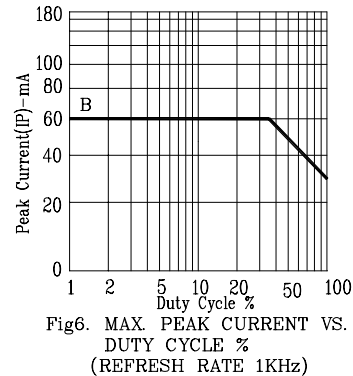


Fig6. MAX. PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE 1KHz)