



# PRODUCT SPECIFICATION

**Model No : CST-836B7/835B7**

## Descriptions:

- 0.8 Inch Triad Digit Display
- CST-836: Common Anode
- CST-835: Common Cathode
- Emitting Color: Super Bright Blue



| CUSTOMER APPROVED<br>SIGNATURES | APPROVED BY | CHECKED BY | PREPARED BY |
|---------------------------------|-------------|------------|-------------|
|                                 |             |            |             |

**CHINA SEMICONDUCTOR CORPORATION**

Address:2FL. NO.909,Chung-Cheng Road,  
Chung-Ho City Taipei Hsien,Taiwan.

Tel:886-2-2223-9696  
Fax:886-2-2223-9377

**OPTO PLUS TECHNOLOGIES CO.,LTD**

Address:696 Shun jiang Rd.,Ji Shan St.Shaoxing,  
ZheJiang,China

Tel:86-0575-8623888  
Fax:86-0575-8623112



**Model No : CST-836/835B7**

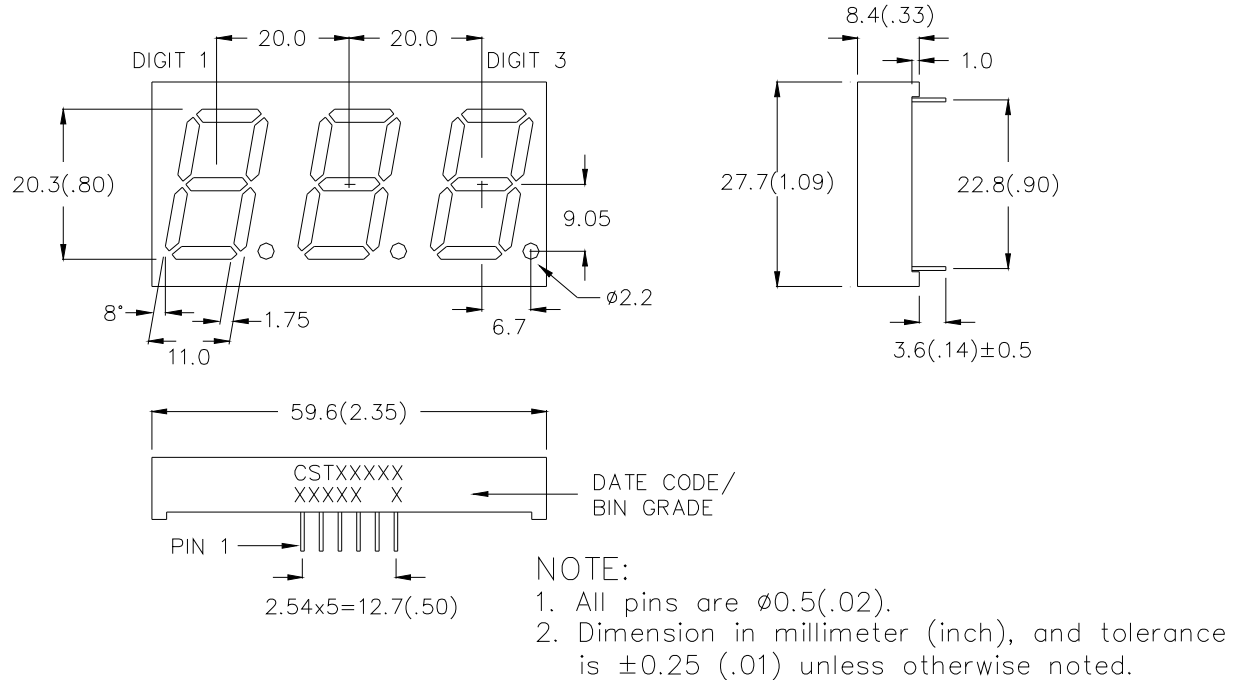
**Features -**

1. 0.8 inch (20.3mm) digit height.
2. Case mold type.
3. RoHs compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

**Device Selection Guide -**

| Part No.         | Chip         |                          | Description           |
|------------------|--------------|--------------------------|-----------------------|
|                  | Material     | Emitted Color            |                       |
| <b>CST-836B7</b> | <b>InGaN</b> | <b>Super Bright Blue</b> | <b>Common Anode</b>   |
| <b>CST-835B7</b> | <b>InGaN</b> | <b>Super Bright Blue</b> | <b>Common Cathode</b> |

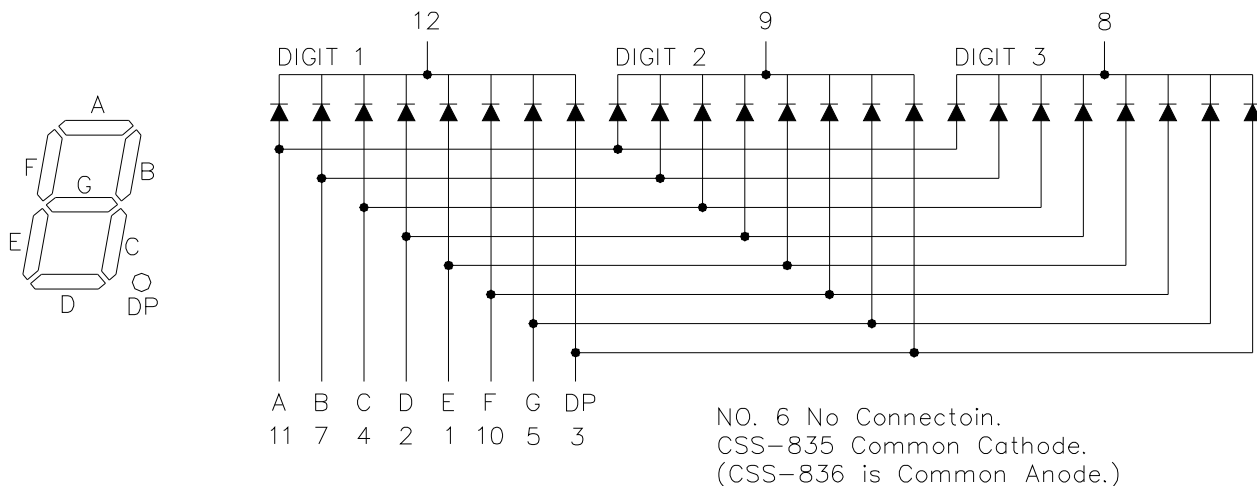
**Package Dimensions -**





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Internal Circuit Diagrams -



Absolute Maximum Rating -

(Ta=25°C)

| Parameter   | Symbol      | Rating    | Unit  |
|---|-------------|-----------|-------|
| Power Dissipation Per Dice  | <b>Pd</b>   | 120       | mW    |
| Continuous Forward Current Per Dice                                     | <b>IAF</b>  | 30        | mA    |
| Peak Current Per Dice(duty cycle 1/10, 1kHz)                            | <b>IPF</b>  | 100       | mA    |
| Derating Linear From 25°C Per Dice                                      | -           | 0.4       | mA/°C |
| Reverse Voltage Per Dice  | <b>VR</b>   | 5         | V     |
| Operating Temp.   | <b>Topr</b> | -35 ~ +85 | °C    |
| Storage Temp.   | <b>Tstg</b> | -35 ~ +85 | °C    |
| Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C |             |           |       |



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■ Electro-optical Characteristics -

(Ta=25°C)

| Parameter                         | Symbol         | Min. | Typ. | Max. | Unit | Condition            |
|-----------------------------------|----------------|------|------|------|------|----------------------|
| Forward Voltage Per Segment       | V <sub>F</sub> | -    | 3.2  | 4    | V    | I <sub>F</sub> =20mA |
| Luminous Intensity Per Segment    | I <sub>v</sub> | -    | 20   | -    | mcd  | I <sub>F</sub> =10mA |
| Dominant Wavelength               | λ <sub>d</sub> | -    | 470  | -    | nm   | I <sub>F</sub> =20mA |
| Spectrum Radiation Bandwidth      | Δ λ            | -    | 30   | -    | nm   | I <sub>F</sub> =20mA |
| Reverse Current                   | I <sub>R</sub> | -    | -    | 100  | μA   | V <sub>R</sub> =5V   |
| Luminous Intensity Matching Ratio | IV-m           | -    | -    | 2:1  |      | I <sub>F</sub> =10mA |



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### Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

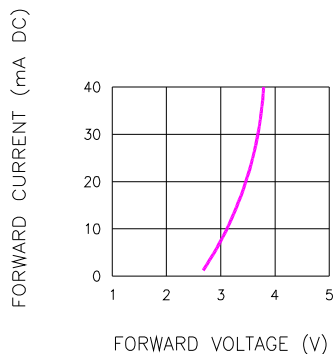


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

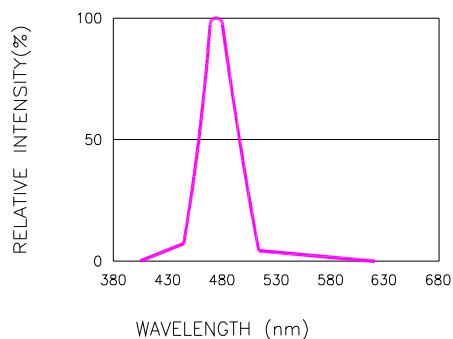


Fig.2 RELATIVE INTENSITY VS. WAVELENGTH

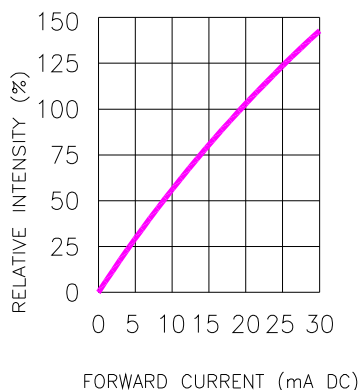


Fig.3 RELATIVE INTENSITY VS. FORWARD CURRENT

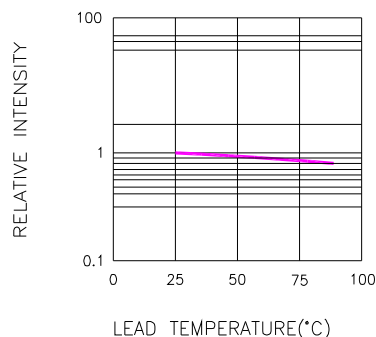


Fig.4 RELATIVE INTENSITY VS. LEAD TEMPERATURE  
(PULSED 20 mA; 300us PULSE, 10ms PERIOD)

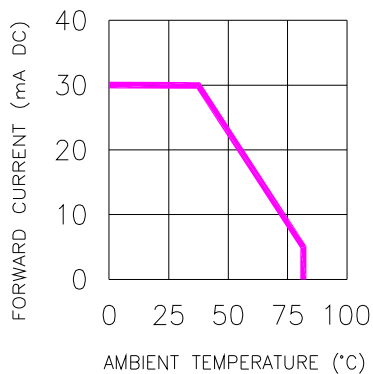


Fig.5 FORWARD CURRENT VS. AMBIENT TEMPERATURE

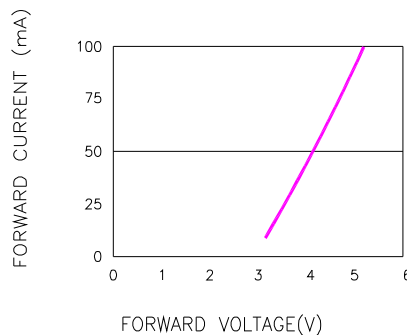


Fig.6 PEAK FORWARD VOLTAGE VS. FORWARD(100us TEST PULSE, 1% DUTY CYCLE)