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| Spec. No. | PS-ND-0807 |
| Rev.      | A          |

# PRODUCT SPECIFICATION

**Model No : CSS-816E/815E**

## Descriptions:

- 0.80 Inch Single Digit Display
- Emitting Color : Orange



| CUSTOMER APPROVED | APPROVED BY | CHECKED BY | PREPARED BY |
|-------------------|-------------|------------|-------------|
| SIGNATURES        |             |            | 陳新強         |

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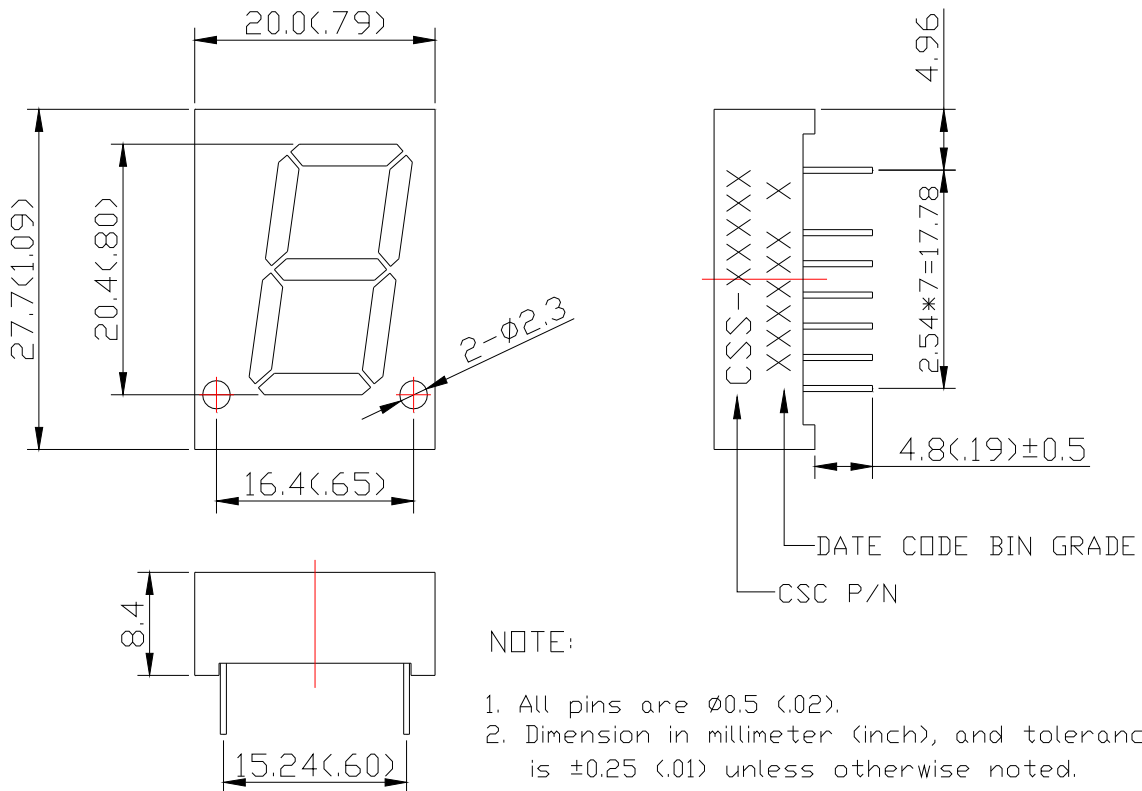
**Features -**

1. 0.80 inch (20.4mm) 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 -**

| Model No.       | Chip         |               | Description           |
|-----------------|--------------|---------------|-----------------------|
|                 | Material     | Emitted Color |                       |
| <b>CSS-816E</b> | <b>GaAsP</b> | <b>Orange</b> | <b>Common Anode</b>   |
| <b>CSS-815E</b> | <b>GaAsP</b> | <b>Orange</b> | <b>Common Cathode</b> |

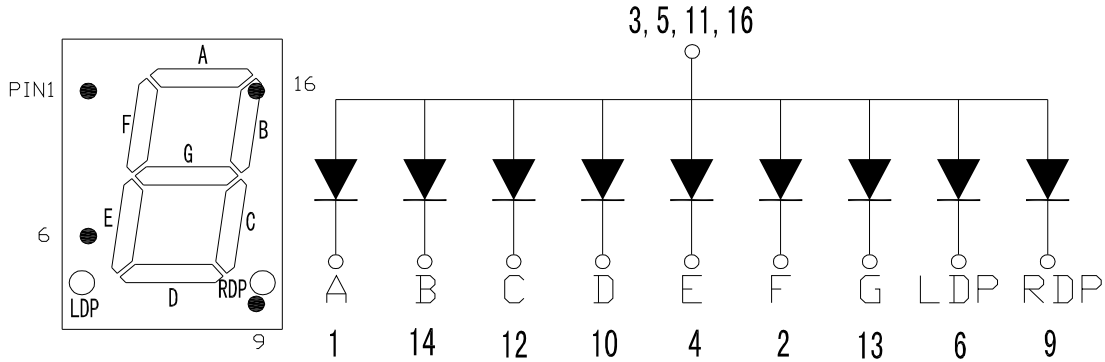
**Mechanical Dimensions -**





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Internal Circuit Diagrams -



NO. 7,8,15 No PIN

CSS-816 Common Anode  
(CSS-815 Common Cathode.)

Absolute Maximum Rating -

(Ta=25°C)

| Parameter   | Symbol | Rating    | Unit  |
|---|--------|-----------|-------|
| Power Dissipation Per Dice  | Pd     | 70        | mW    |
| Continuous Forward Current Per Dice                                     | IAF    | 25        | mA    |
| Peak Current Per Dice   | IPF    | 90        | mA    |
| Continuous Forward Current Per Dice                                     | -      | 0.33      | mA/°C |
| Reverse Voltage Per Dice  | VR     | 5         | V     |
| Operating Temperature   | Topr   | -35 ~ +85 | °C    |
| Storage Temperature   | Tstg   | -35 ~ +85 | °C    |
| Solder temperature 1/16 inch below seating plane for 3 seconds at 260 ° |        |           |       |



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■ Electro-optical Characteristics -

(Ta=25°C)

| Parameter                         | Symbol           | Min. | Typ. | Max. | Unit    | Condition |
|-----------------------------------|------------------|------|------|------|---------|-----------|
| Forward Voltage Per Segment       | VF               | -    | 2.0  | 2.8  | V       | IF=20mA   |
| Luminous Intensity Per Segment    | Iv               | -    | 4    | -    | mcd     | IF=10mA   |
| Peak Emission Wavelength          | $\lambda P$      | -    | 632  | -    | nm      | IF=20mA   |
| Dominant Wavelength               | $\lambda d$      | -    | 624  | -    | nm      | IF=20mA   |
| Spectrum Radiation Bandwidth      | $\Delta \lambda$ | -    | 35   | -    | nm      | IF=20mA   |
| Reverse Current                   | IR               | -    | -    | 100  | $\mu$ A | VR=5V     |
| Luminous Intensity Matching Ratio | IV-m             | -    | -    | 2:1  | -       | IF=20mA   |



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**Typical Electrical / Optical Characteristics Curves -**

**(Ta = 25°C Unless Otherwise Noted)**

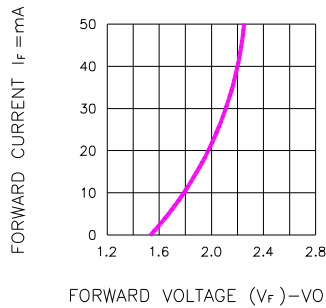


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

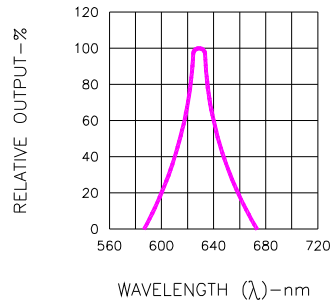


Fig.2 SPECTRAL RESPONSE

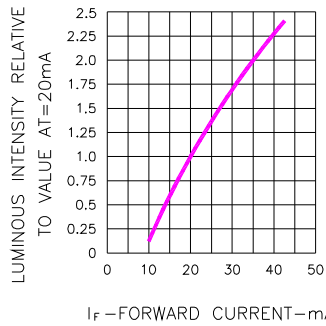


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

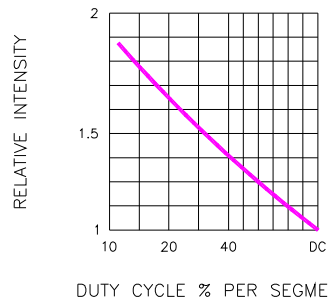


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

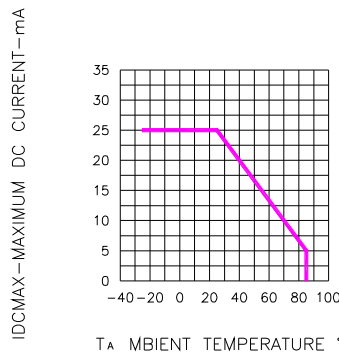


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. AMBIENT TEMPERATURE

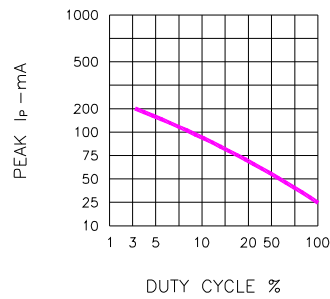


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE (REFRESH RATE f=1 KHz)

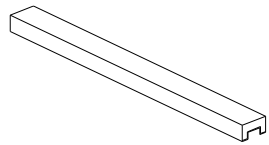


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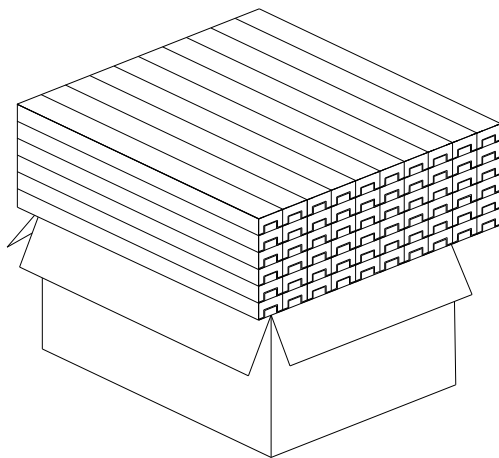
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■ Package Dimensions

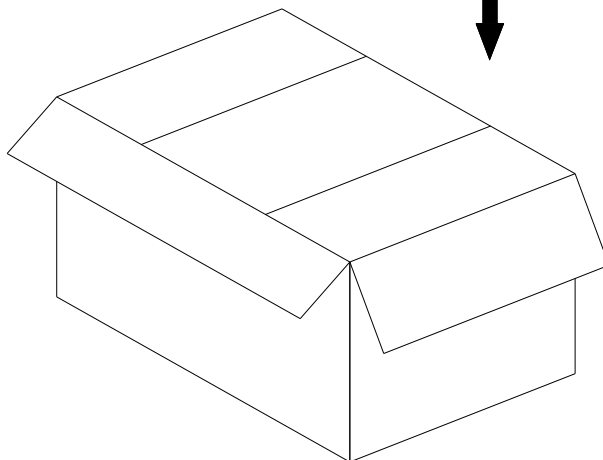
Single Digit Display  
Dice Code  
CSS-81XX



18 PCS per tube



60 Tubes per inner box  
Total Q'TY: 1080 pcs



3 Inner boxes per carton.  
Total Q'TY: 3240 pcs

Carton size:  
L54xW48.5xH30.5cm

Note: The specifications are subject to change without notice. Please contact us for updated information  
<http://www.csctw.com.tw>