

# PRODUCT SPECIFICATION

**Model No : CSS-15104V9/15105V9**

## Descriptions:

- 1.5 Inch Single Digit Display
- Emitting Color : Super Bright Orange



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

### 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

<http://www.csctw.com.tw>

**Model No : CSS-15104V9/15105V9**

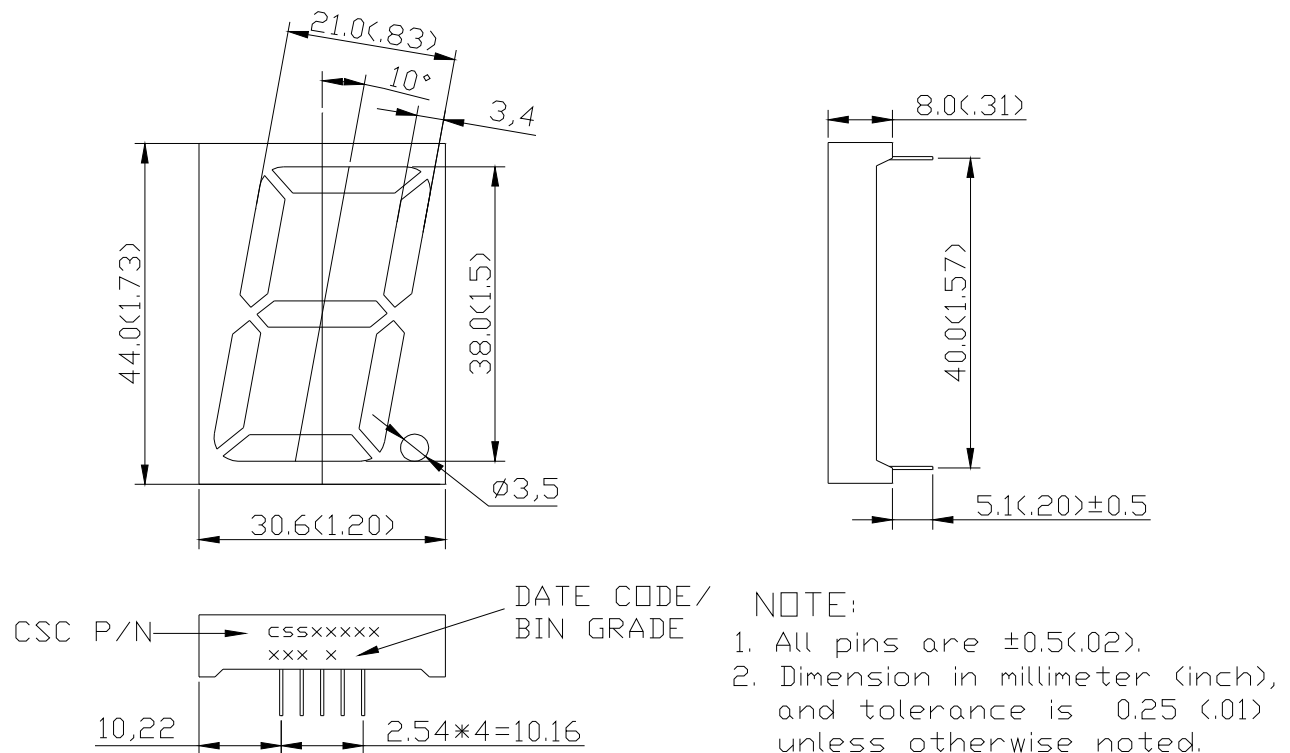
### ■ Features -

1. 1.5 inch (38.0mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
5. ESD>1KV(HBM)
6. Easy mounting on P.C. board or socket.

### ■ Device Selection Guide -

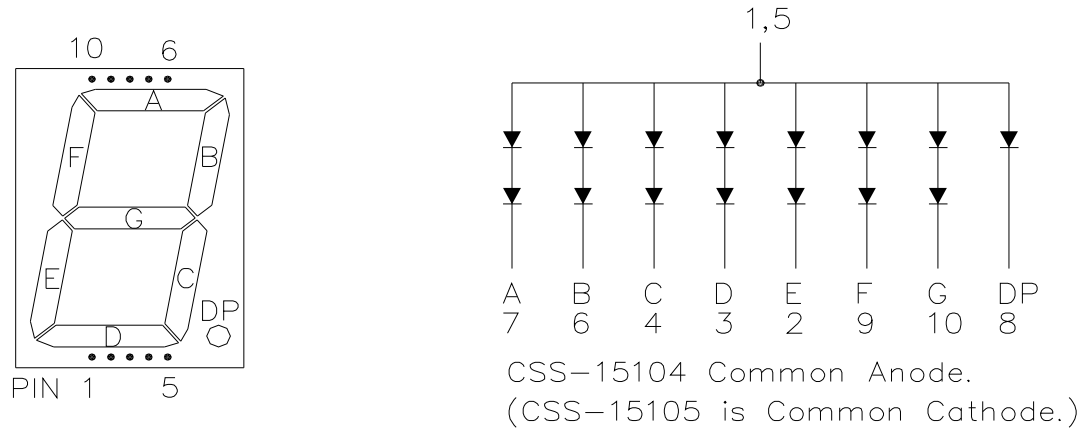
| Part No.    | Chip     |                     | Description    |
|-------------|----------|---------------------|----------------|
|             | Material | Emitted Color       |                |
| CSS-15104V9 | AlGaInP  | Super Bright Orange | Common Anode   |
| CSS-15105V9 | AlGaInP  | Super Bright Orange | Common Cathode |

### ■ Mechanical Dimensions -



Model No : CSS-15104V9/15105V9

### Internal Circuit Diagrams -



### Absolute Maximum Rating -

(Ta=25°C)

| Parameter                                                               | Symbol      | Rating    | Unit  |
|-------------------------------------------------------------------------|-------------|-----------|-------|
| Power Dissipation Per Dice                                              | <b>Pd</b>   | 75        | mW    |
| Continuous Forward Current Per Dice                                     | <b>IAF</b>  | 25        | mA    |
| Peak Current Per Dice (duty cycle 1/10,1KHz)                            | <b>IPF</b>  | 90        | mA    |
| Derating Linear From 25°C Per Dice                                      | -           | 0.33      | 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 |             |           |       |

**Model No : CSS-15104V9/15105V9**

■ **Electro-optical Characteristics -**

(Ta=25℃)

| Parameter                         | Symbol           | Min. | Typ.     | Max.     | Unit    | Condition |
|-----------------------------------|------------------|------|----------|----------|---------|-----------|
| Forward Voltage Per Segment (DP)  | VF               | -    | 4.2(2.1) | 5.6(2.8) | V       | IF=20mA   |
| Luminous Intensity Per Segment    | Iv               | -    | 45       | -        | mcd     | IF=10mA   |
| Peak Emission Wavelength          | $\lambda_p$      | -    | 632      | -        | nm      | IF=20mA   |
| Dominant Wavelength               | $\lambda_d$      | -    | 624      | -        | nm      | IF=20mA   |
| Spectrum Radiation Bandwidth      | $\Delta \lambda$ | -    | 20       | -        | nm      | IF=20mA   |
| Reverse Current                   | IR               | -    | -        | 100      | $\mu A$ | VR=10V    |
| Luminous Intensity Matching Ratio | IV-m             | -    | -        | 2:1      | -       | IF=10mA   |

Model No : CSS-15104V9/15105V9

## Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

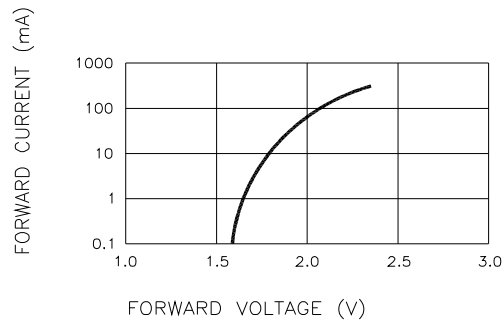


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

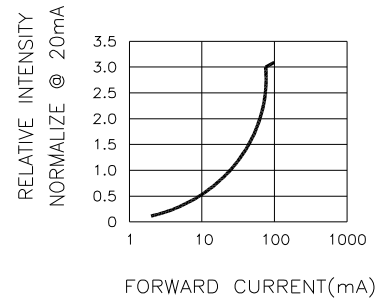


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

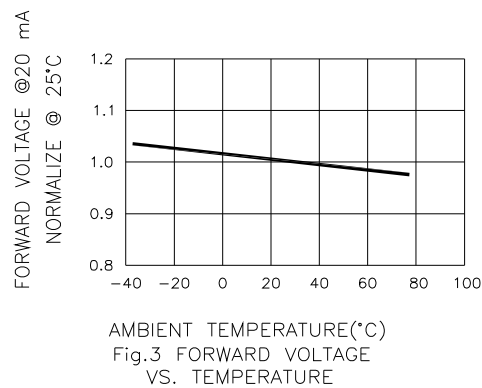


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

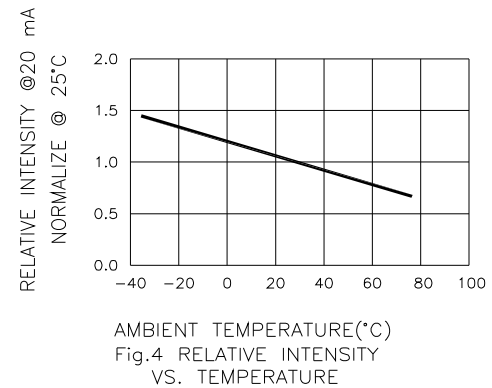


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

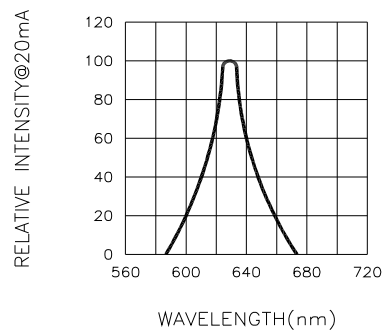
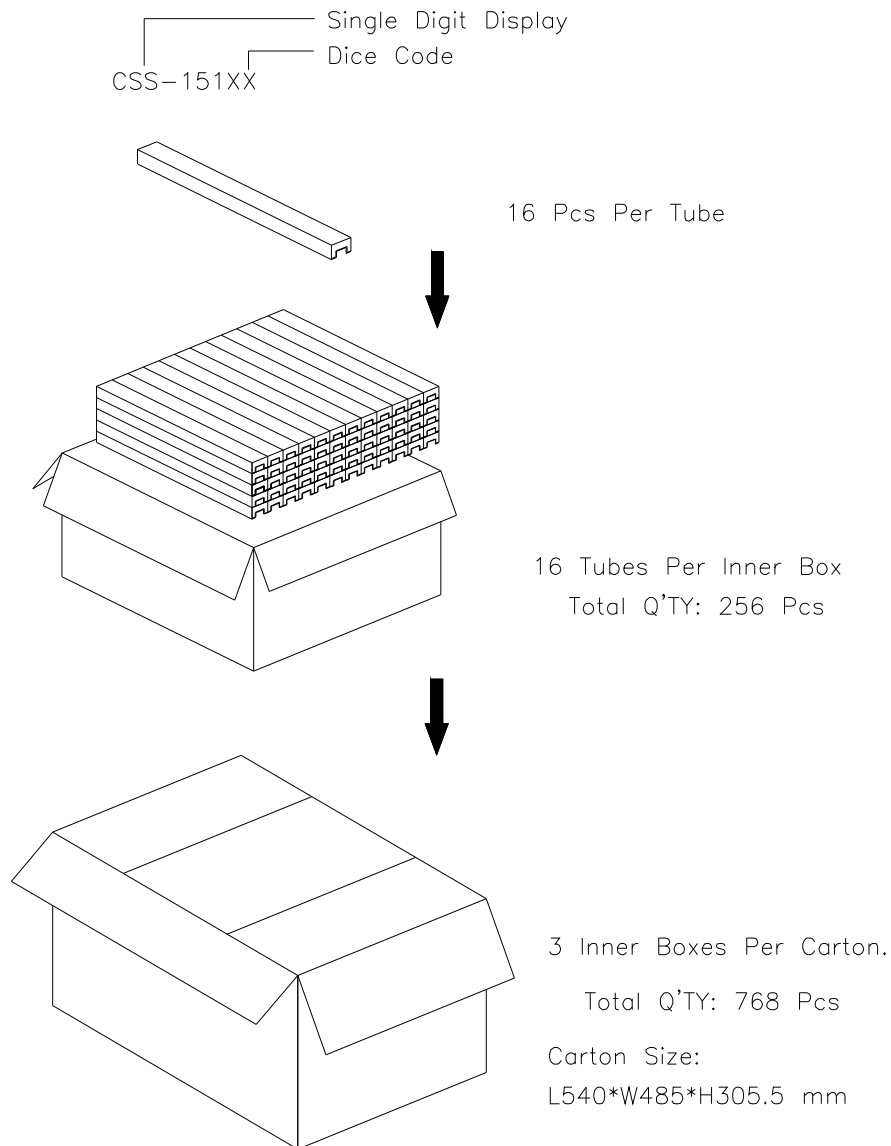


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

Model No: CSS-15104V9/15105V9

## Package Dimensions



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