



Spec. No.	PS-ND-0712
Rev.	A

# PRODUCT SPECIFICATION

**Model No : CSS-5160V9/CSS-5161V9**

## Descriptions:

- 0.50 Inch Single Digit Alphanumeric Display
- Emitting Color: Super-Bright Orange



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			

**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



<b>Spec. No.</b>	PS-ND-0712
<b>Rev.</b>	A

**Model No : CSS-5160V9/5161V9**

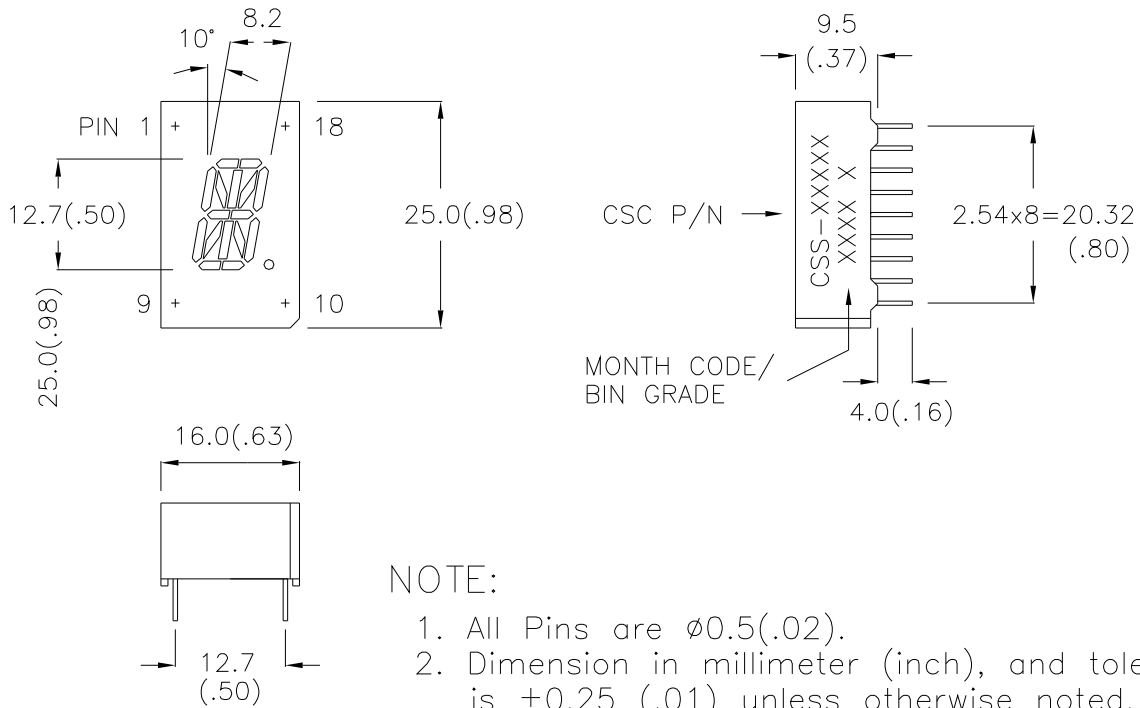
**Features -**

1. 0.50 inch (12.7 mm) 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>CSS-5160V9</b>	<b>AlGaInP</b>	<b>Super-Bright Orange</b>	<b>Common Anode</b>
<b>CSS-5161V9</b>			<b>Common Cathode</b>

**Package Dimensions -**



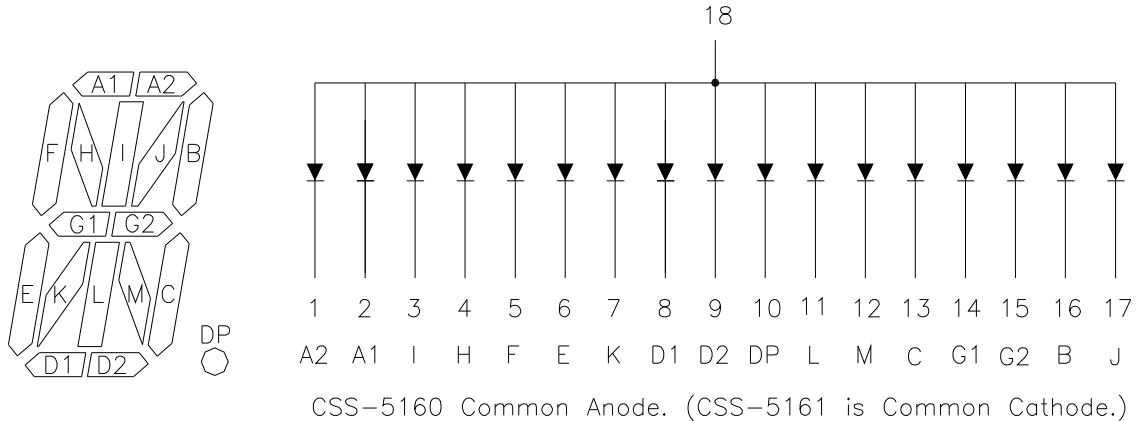
**NOTE:**

1. All Pins are  $\phi 0.5(.02)$ .
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.25 (.01)$  unless otherwise noted.



Model No : CSS-5160V9/5161V9

Internal Circuit Diagrams -



Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	65	mW
Continuous Forward Current Per Dice	IAF	25	mA
Peak Current Per Dice (Duty Cycle 1/10, 1kHz)	IPF	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temperature	Topr	-25 ~ +85	°C
Storage Temperature	Tstg	-25 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			



Model No : CSS-5160V9/5161V9

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	VF	-	2.1	2.6	V	IF=20mA
Luminous Intensity Per Segment	Iv	-	18	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$	-	632	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	$\mu A$	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2 : 1	-	IF=20mA



Spec. No.	PS-ND-0712
Rev.	A

Model No : CSS-5160V9/5161V9

■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

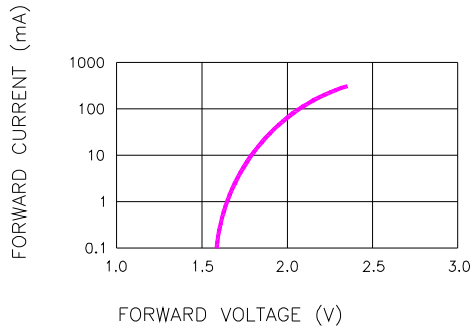


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

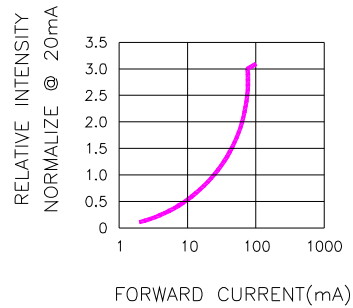


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

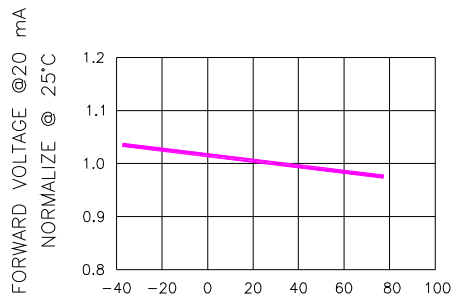


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

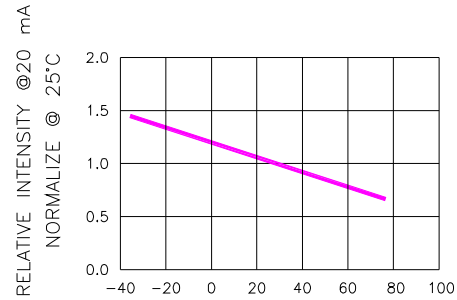


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

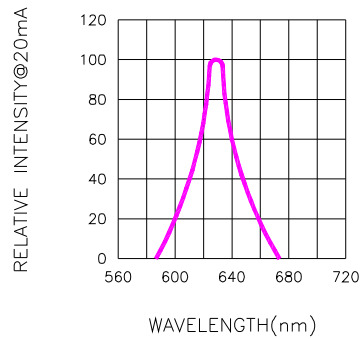


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

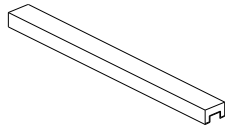


Spec. No.	PS-ND-0712
Rev.	A

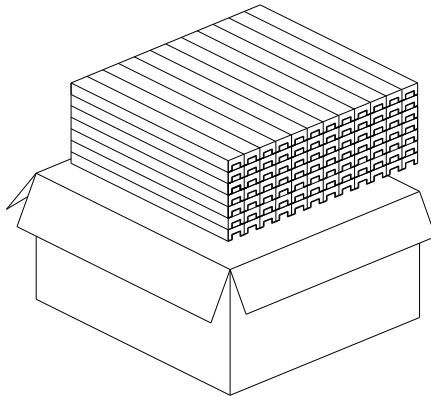
Model No : CSS-5160V9/5161V9

### Package Dimensions

S = Single Digit Display  
Dice Code  
CSS-516xX-XX  
Segment Resin Color Code.  
Surface silk Screen Ink Code.



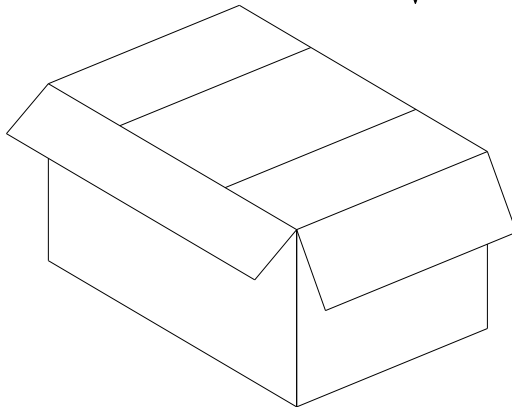
1 TUBE From Box = 20 PCS



1 BOX= 60 TUBE From Box  
Q'TY: 1200 PCS.



1 CARTON = 3 BOX.  
Q'TY: 3600 PCS.



CARTON SIZE:  
L540xW485xH305mm

Note: The specifications are subject to change without notice. Please contact us for updated information.