



Spec. No.	PS-ND-0711
Rev.	A

# PRODUCT SPECIFICATION

**Model No : CSS-1018A9/1019A9**

## Descriptions:

- 1.0 Inch Single Digit Display
- Emitting Color : Super Bright Amber



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>



<b>Spec. No.</b>	PS-ND-0711
<b>Rev.</b>	A

**Model No : CSS-1018A9/1019A9**

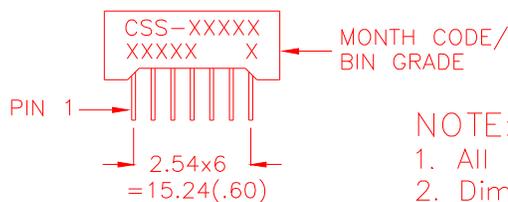
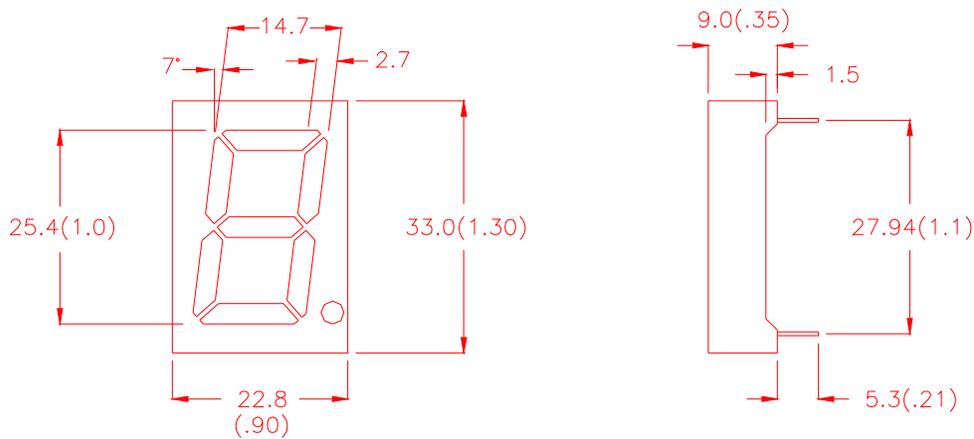
**Features -**

1. 1.0 inch (25.4mm) 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	
<b>CSS-1018A9</b>	<b>AlGaInP</b>	<b>Super Bright Amber</b>	<b>Common Anode</b>
<b>CSS-1019A9</b>	<b>AlGaInP</b>	<b>Super Bright Amber</b>	<b>Common Cathode</b>

**Mechanical Dimensions -**



**NOTE:**

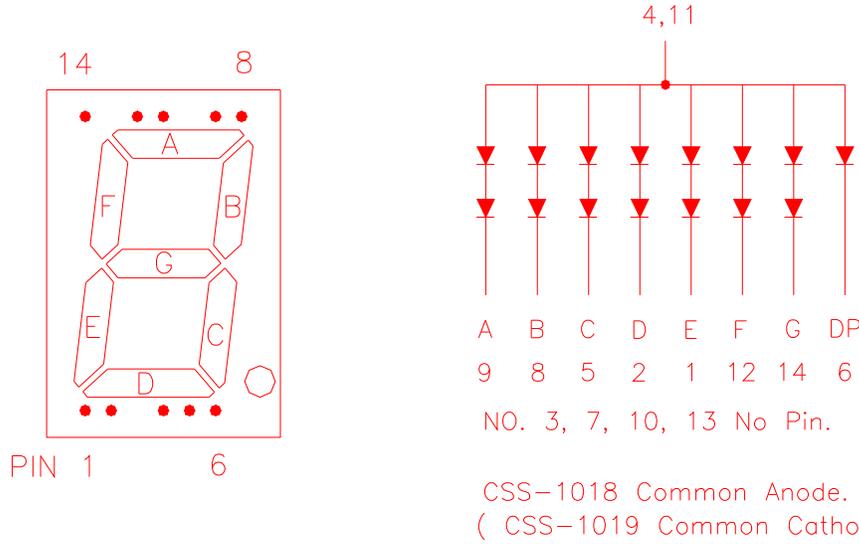
1. All pins are  $\phi 0.5 (.02)$ .
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.25 (.01)$  unless otherwise noted.



<b>Spec. No.</b>	PS-ND-0711
<b>Rev.</b>	A

**Model No : CSS-1018A9/1019A9**

**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	<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			



<b>Spec. No.</b>	PS-ND-0711
<b>Rev.</b>	A

**Model No : CSS-1018A9/1019A9**
**Electro-optical Characteristics -**

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	VF	-	4.0(2.0)	5.6(2.8)	V	IF=20mA
Luminous Intensity Per Segment	Iv	-	45	-	ucd	IF=20mA
Peak Emission Wavelength	$\lambda_p$	-	612	-	nm	IF=20mA
Dominant Wavelength	$\lambda_d$	-	606	-	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



<b>Spec. No.</b>	PS-ND-0711
<b>Rev.</b>	A

**Model No : CSS-1018A9/1019A9**

**Typical Electrical / Optical Characteristics Curves -**

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

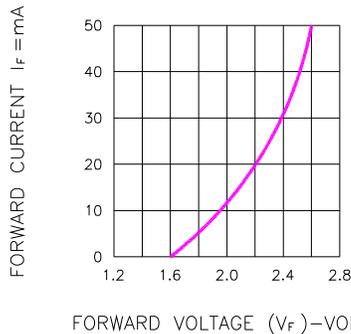


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

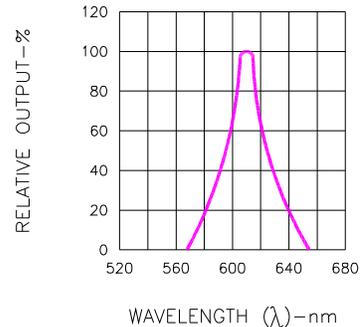


Fig.2 SPECTRAL RESPONSE

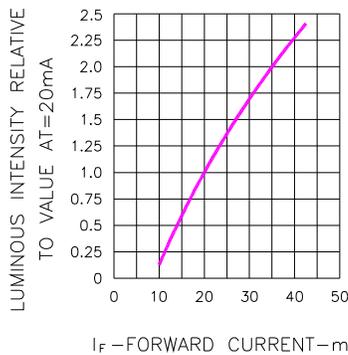


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

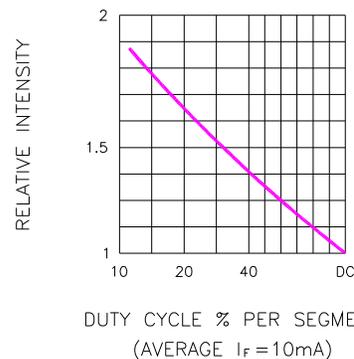


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

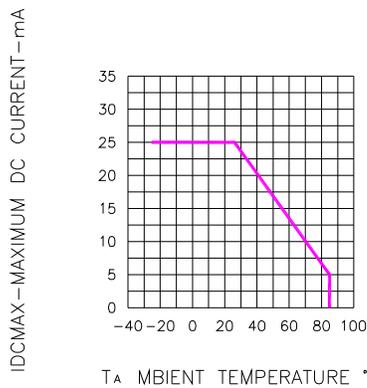


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

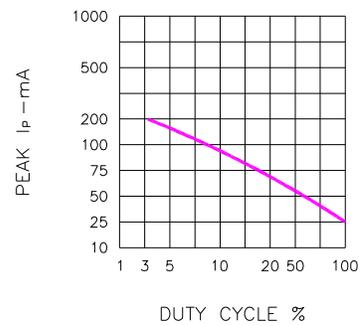


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

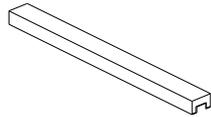


<b>Spec. No.</b>	PS-ND-0711
<b>Rev.</b>	A

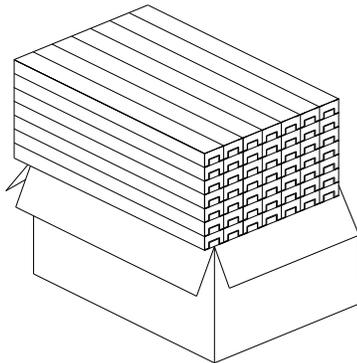
**Model No : CSS-1018A9/1019A9**

**Package Dimensions**

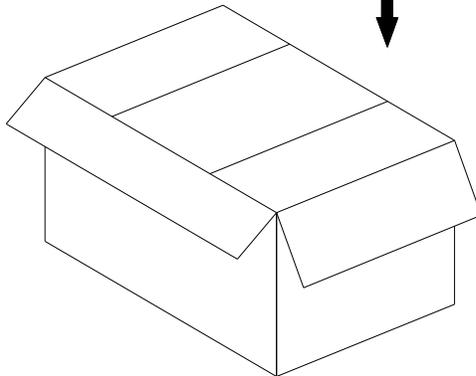
Single Digit Display  
Dice Code  
CSS-101XX



20 PCS per tube



49 Tubes per inner box  
Total Q'TY: 980 pcs



3 Inner boxes per carton.  
Total Q'TY: 2940 pcs

Box size:  
L54xW48.5xH30.5cm

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