



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

# PRODUCT SPECIFICATION

**Model No : CSS-4012G/4013G**

## Descriptions:

- 4.0 Inch Single Digit Display
- Emitting Color : Yellow Green



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			陳新強

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**Model No : CSS-4012G/4013G**

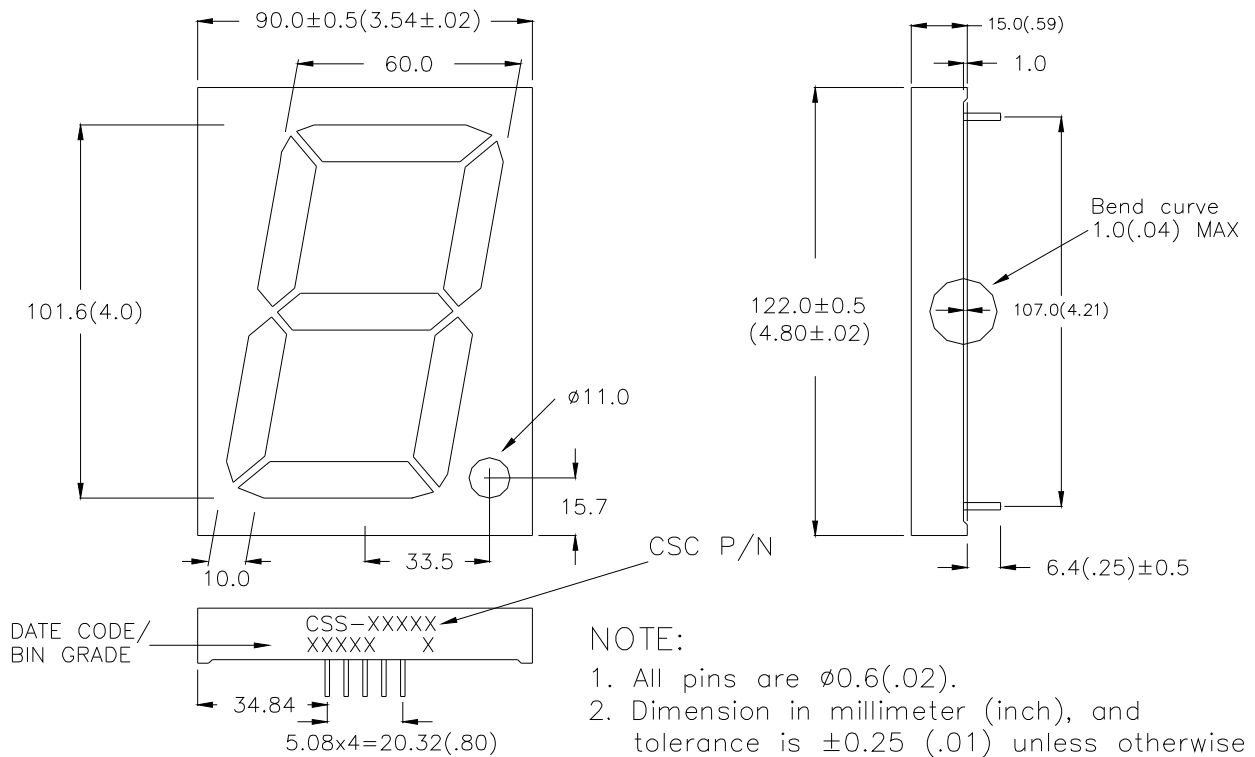
**Features -**

1. 4.0 inch (101.6mm) 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-4012G</b>	<b>GaP</b>	<b>Yellow Green</b>	<b>Common Anode</b>
<b>CSS-4013G</b>	<b>GaP</b>	<b>Yellow Green</b>	<b>Common Cathode</b>

**Mechanical Dimensions -**



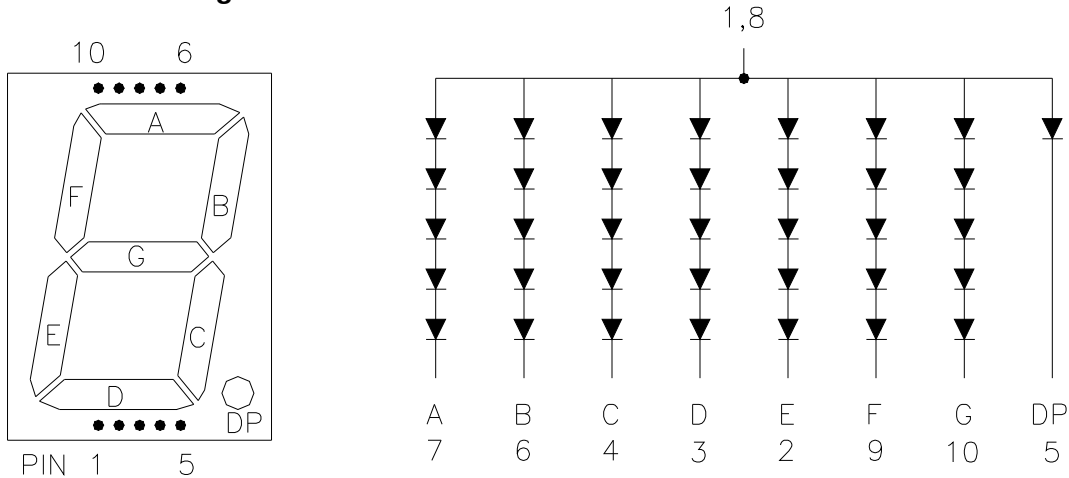
**NOTE:**

1. All pins are  $\phi 0.6$  ( $0.02$ ).
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.25$  ( $0.01$ ) unless otherwise noted.



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Internal Circuit Diagrams -



CSS-4012 Common Anode  
(CSS-4013 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(Dty cycle 1/10,1KHz)	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 °C			



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■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment(DP)	VF	-	10.5(2.1)	14(2.8)	V	IF=20mA
Luminous Intensity Per Segment	Iv	-	25	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda P$	-	568	-	nm	IF=20mA
Dominant Wavelength	$\lambda d$	-	572	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	IF=20mA
Reverse Current	IR	-	-	100	$\mu A$	VR=25V
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)**

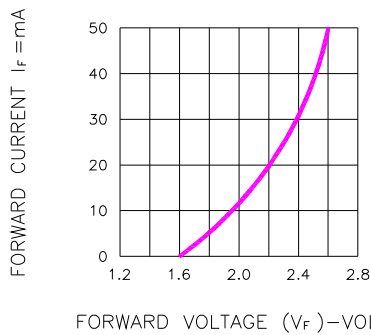


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

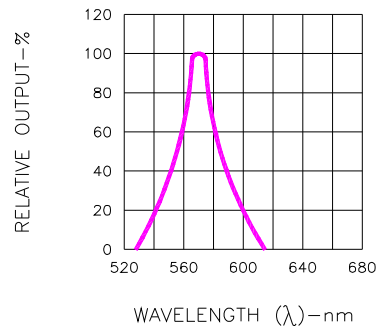


Fig.2 SPECTRAL RESPONSE

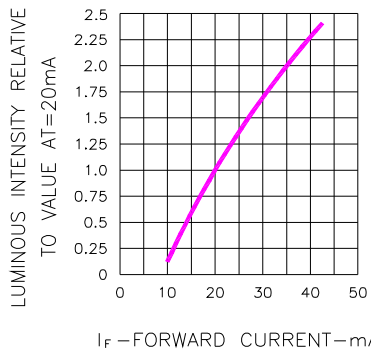


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

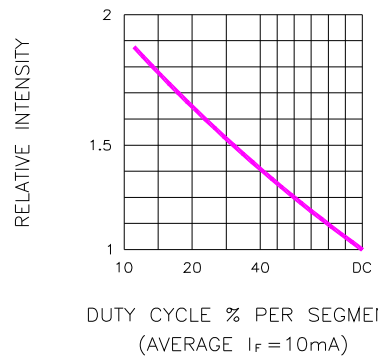


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

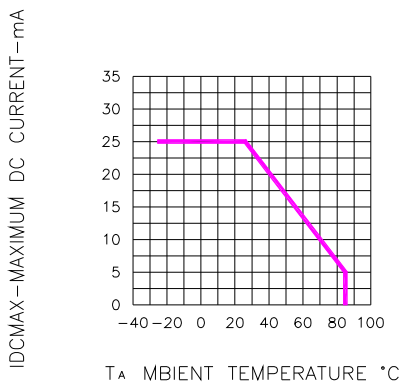


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

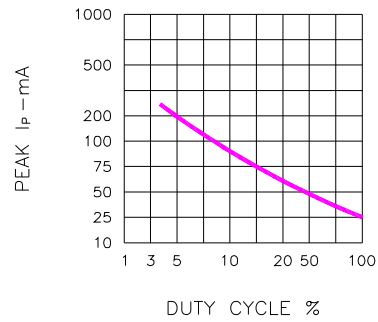


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE (REFRESH RATE f=1 KHz)

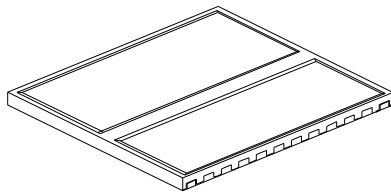


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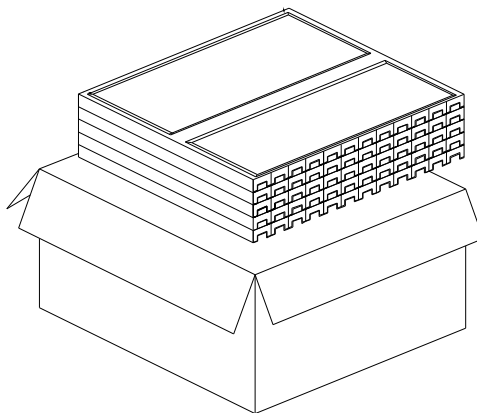
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■ Package Dimensions

SINGLE DIGIT Display  
Dice Code  
CSS-401XX

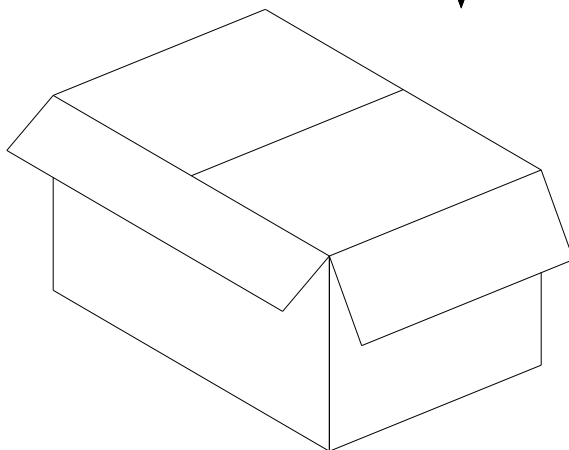


2pcs per polyform



41 polyforms per inner box  
TOTAL Q'TY: 82 PCS.

INNER BOX SIZE:  
L445xW360xH262mm



2 inner boxes per carton  
TOTAL Q'TY: 164 PCS.

CARTON SIZE:  
L460xW378xH558mm

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