



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

PRODUCT SPECIFICATION

Model No : CSS-4012A9/4013A9

Descriptions:

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



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			陳新強

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Model No : CSS-4012A9/4013A9

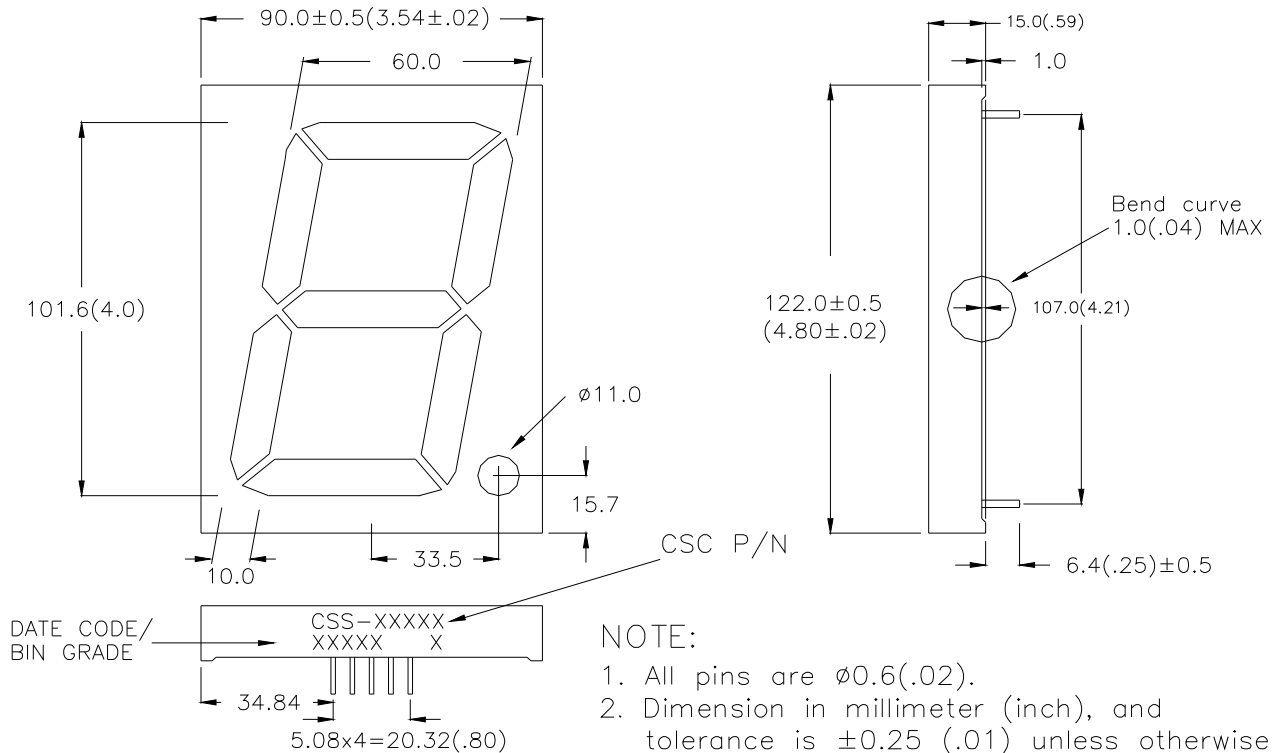
Features -

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	
CSS-4012A9	AlGaInP	Super Bright Amber	Common Anode
CSS-4013A9	AlGaInP	Super Bright Amber	Common Cathode

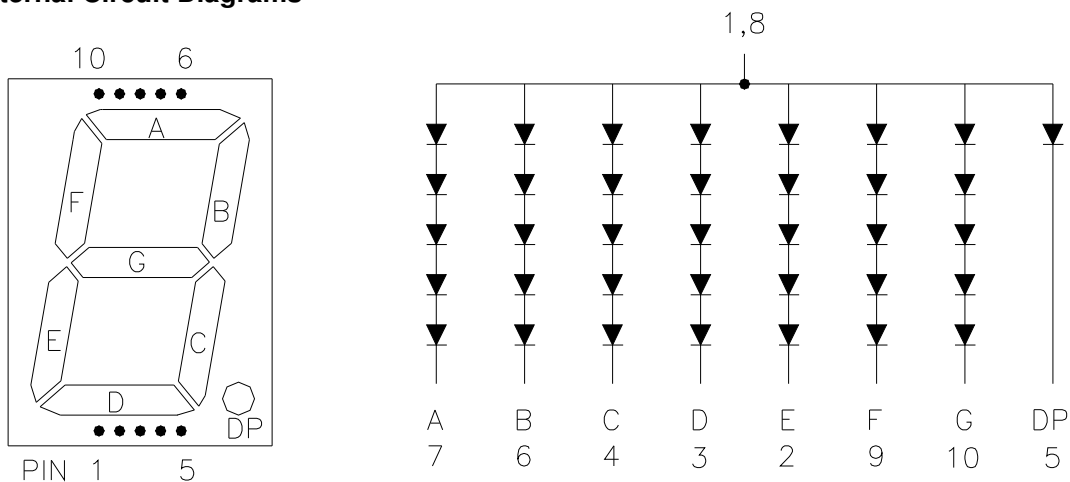
Mechanical Dimensions -





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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 (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	-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(2.0)	14(2.8)	V	IF=20mA
Luminous Intensity Per Segment	Iv	-	100	-	mcd	IF=10mA
Peak Emission Wavelength	λP	-	612	-	nm	IF=20mA
Dominant Wavelength	λd	-	606	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	μA	VR=25V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA



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Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

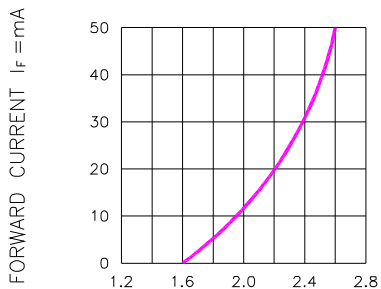


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

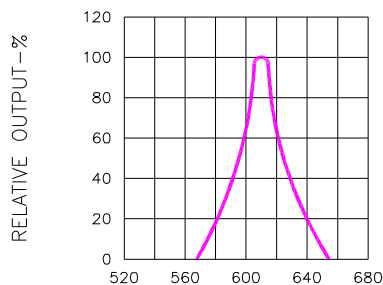


Fig.2 SPECTRAL RESPONSE

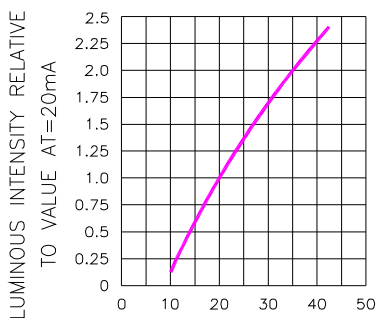


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

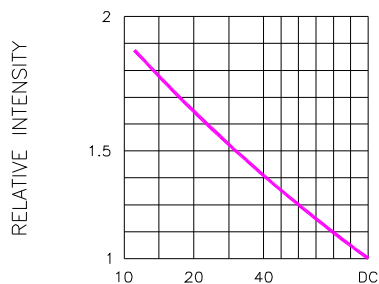


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE
(AVERAGE I_F=10mA)

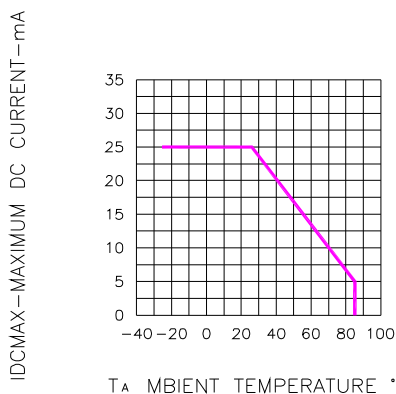


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

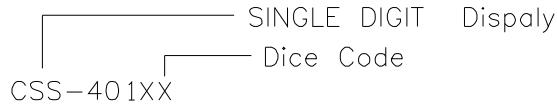


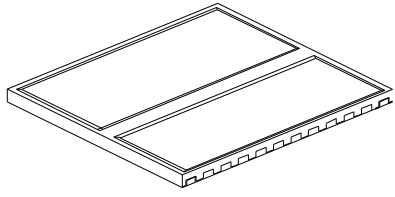
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE f=1 KHz)



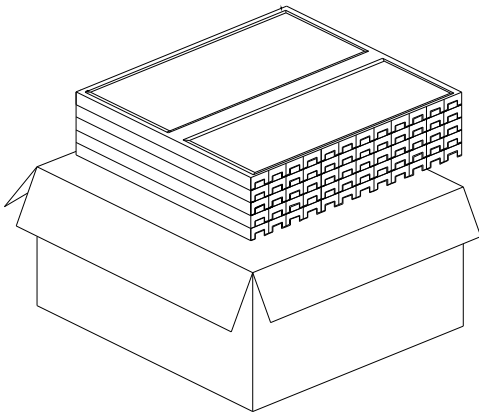
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■ Package Dimensions


 SINGLE DIGIT Display
 Dice Code
 CSS-401XX

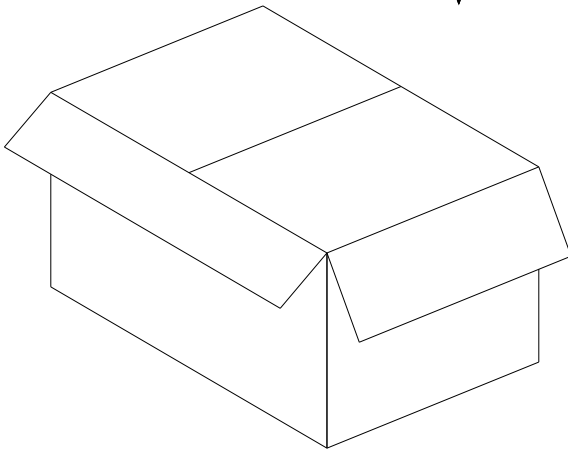


2pcs per polyform



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>