CHINA
SEMICONDUCTOR
CORPORATION

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

PRODUCT SPECIFICATION

Model No：CSS-4310A9/4311A9

Descriptions:
• 0.43 Inch Single Digit Display • Emitting Color：Super Bright Amber

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY
			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:86-0575-88623888
Fax:86-0575-88623112

http://www.csctw.com.tw

Model No：CSS-4310A9/4310A9

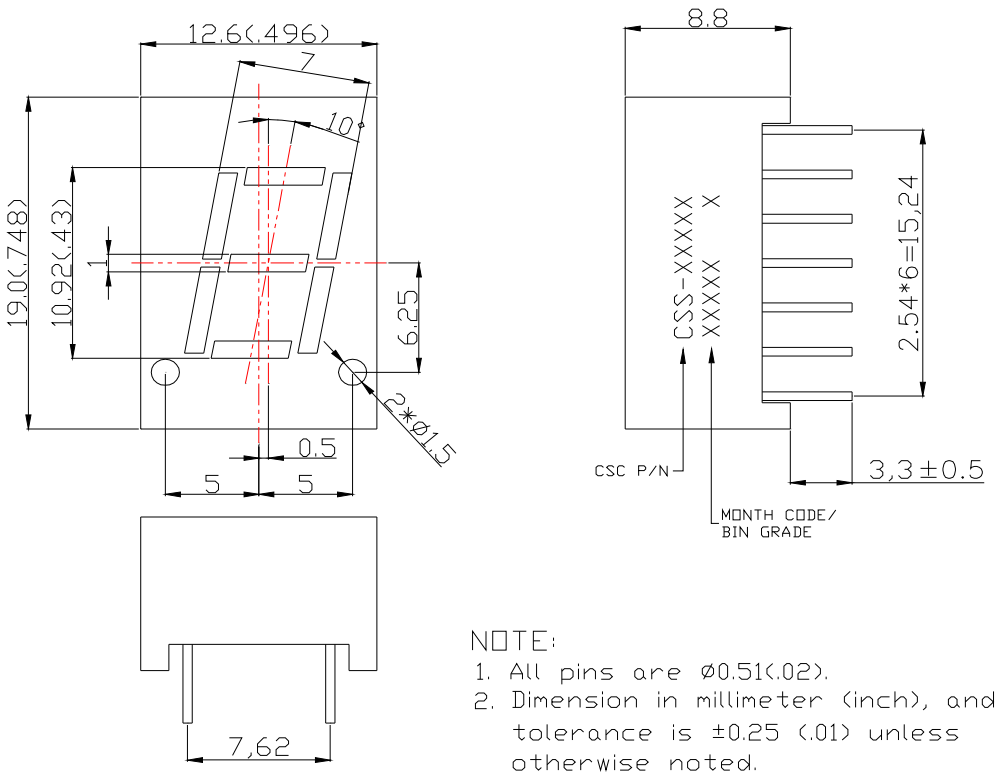
■ Features -

1. 0.43 inch (10.92mm) 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 -

Model No.	Chip		Description
	Material	Emitted Color	
CSS-4310A9	AlGaInP	Super Bright Amber	Common Anode
CSS-4311A9	AlGaInP	Super Bright Amber	Common Cathode

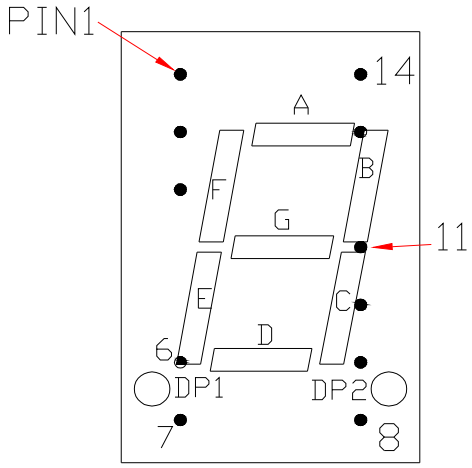
■ Mechanical Dimensions -

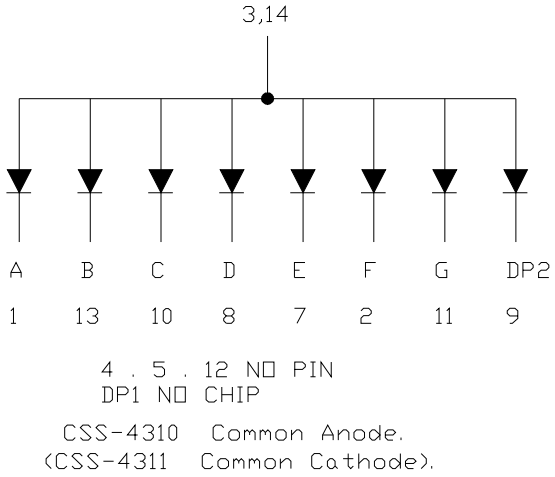


NOTE:
1. All pins are Ø0.51(.02).
2. Dimension in millimeter (inch), and tolerance is ±0.25 (.01) unless otherwise noted.

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■ Internal Circuit Diagrams -





■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	70	mW
Continuous Forward Current Per Dice	IAF	25	mA
Peak Current Per Dice	IPF	90	mA
Derating Linear From 25℃ Per Dice	-	0.33	mA/℃
Reverse Voltage Per Dice	VR	5	V
Operating Temperature	Topr	-35 ~ +85	℃
Storage Temperature	Tstg	-35 ~ +85	℃
Solder temperature 1/16 inch below seating plane for 3 seconds at 260 ℃			

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■ **Electro-optical Characteristics -**

(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	VF	-	2.0	2.8	V	IF=20mA
Luminous Intensity Per Segment	Iv	6000	15000	-	ucd	IF=10mA
Peak Emission Wavelength	λP	-	612	-	nm	IF=20mA
Dominant Wavelength	λd	-	606	-	nm	IF=20mA
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	μA	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

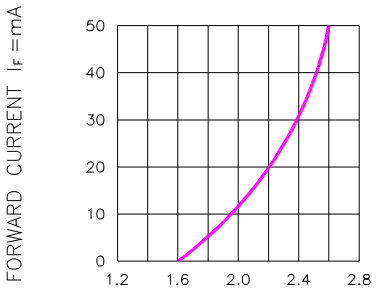


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

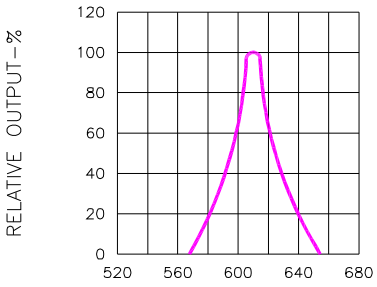


Fig.2 SPECTRAL RESPONSE

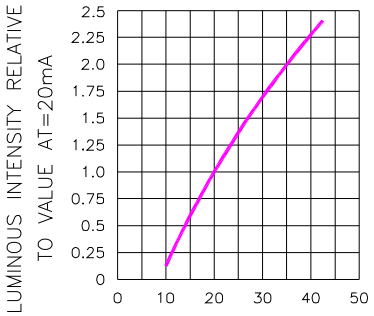


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

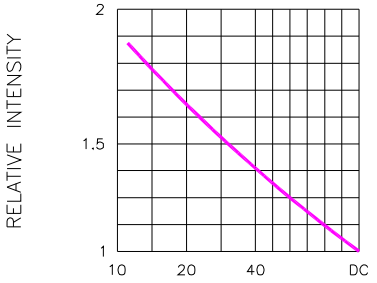


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

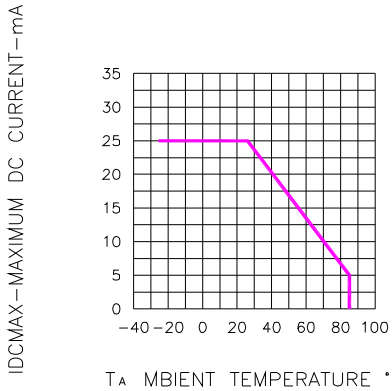


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

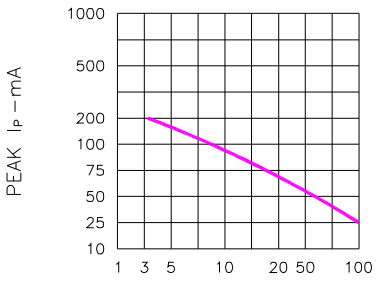


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

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■ Package Dimensions

