CHINA
SEMICONDUCTOR
CORPORATION

Spec. No.	PS-ND-08081302
Rev.	A

PRODUCT SPECIFICATION

Model No：CSS-1014D-21

Descriptions:
• 1.0 Inch Single Digit Display
• Common Anode
• Emitting Color：Super-Bright Red (DH)
• Black Face
• White Segment

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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http://www.csctw.com.tw

Model No : CSS-1014D-21

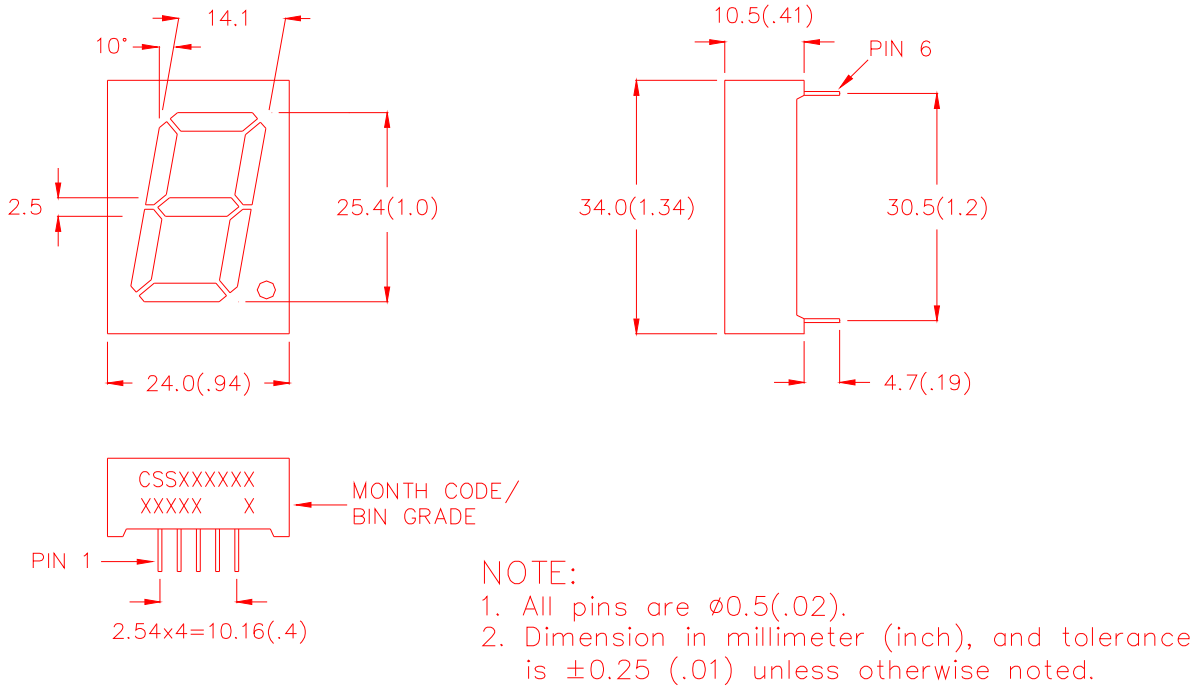
■ Features -

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		Face / Segment
	Material	Emitted Color	
CSS-1014D	AlGaAs	Super-Bright Red	Black / White

■ Package Dimensions -



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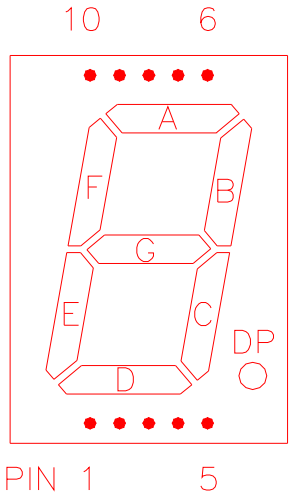
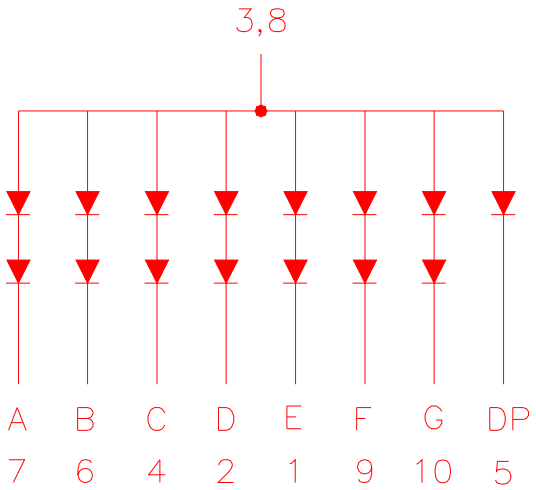
■ Internal Circuit Diagrams -





■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	75	mW
Continuous Forward Current Per Dice	I_{AF}	30	mA
Peak Current Per Dice (duty cycle 1/10,1KHz)	I_{PF}	125	mA
Reverse Voltage Per Dice	V_R	5	V
Operating Temp.	Topr	-25 ~ +85	℃
Storage Temp.	Tstg	-25 ~ +85	℃
Solder emperature 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 (DP)	VF	-	3.6(1.8)	5.0(2.5)	V	IF=20mA
Luminous Intensity Per Segment	Iv	-	38	-	mcd	
Peak Emission Wavelength	λP	-	660	-	nm	
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	
Reverse Current	IR	-	-	100	μA	VR=10V

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

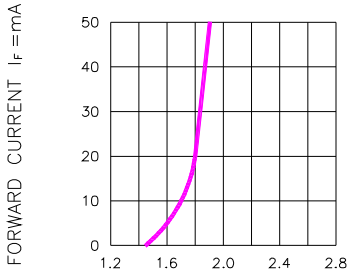

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

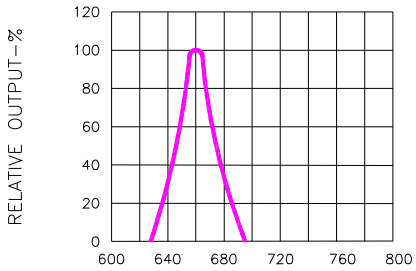

Fig.2 SPECTRAL RESPONSE

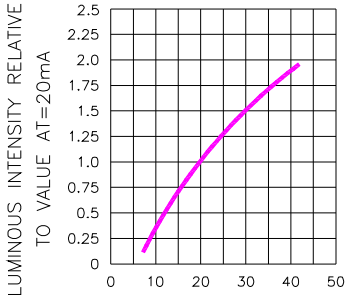

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

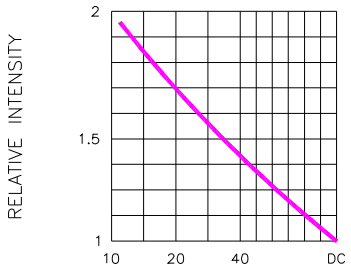

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

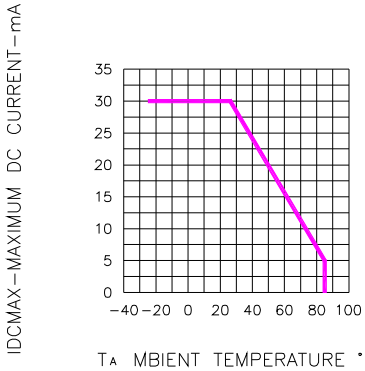

Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

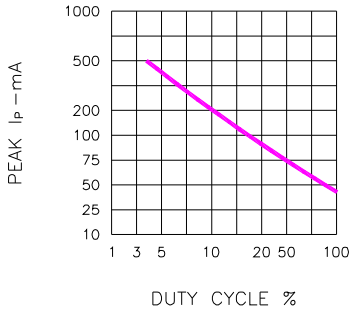

Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE f=1 KHz)