CHINA
SEMICONDUCTOR
CORPORATION

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

PRODUCT SPECIFICATION

Model No：CSS-1014S/1015S

Descriptions:

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

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY
			陳新強

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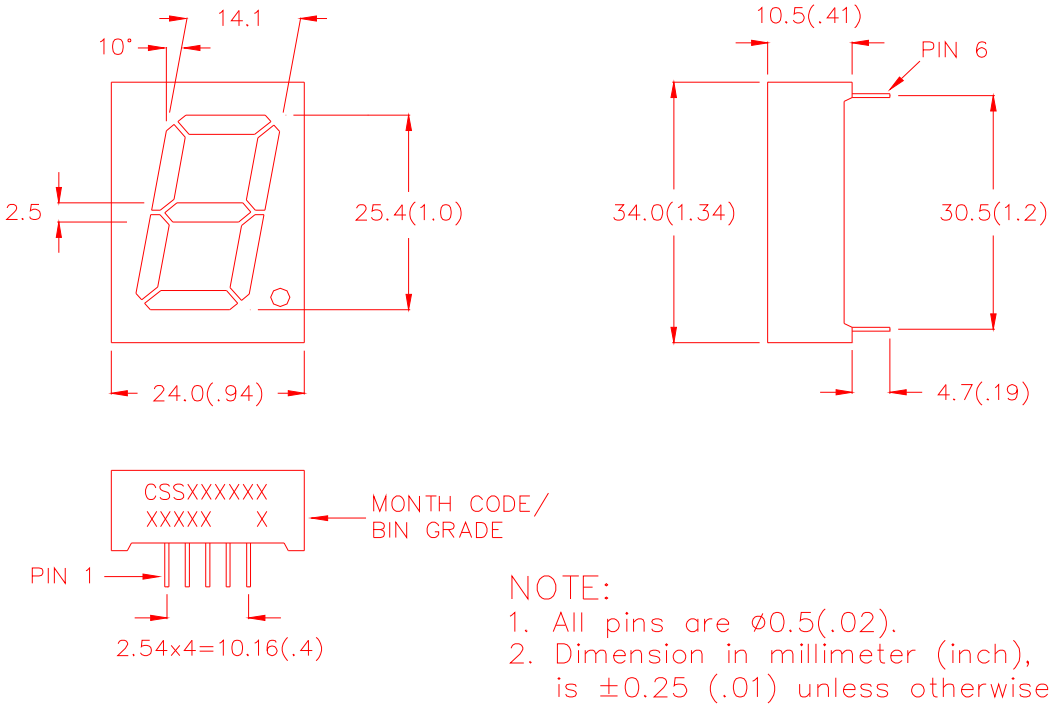
■ Features -

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	
CSS-1014S	AlGaAs	Super Bright Red	Common Anode
CSS-1015S	AlGaAs	Super Bright Red	Common Cathode

■ Mechanical Dimensions -



NOTE:
1. All pins are ø0.5(.02).
2. Dimension in millimeter (inch), and tolerance is ±0.25 (.01) unless otherwise noted.

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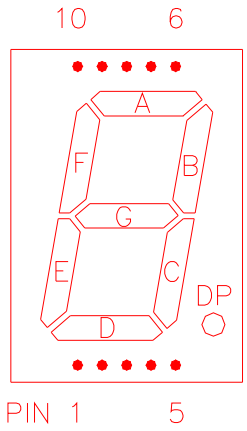
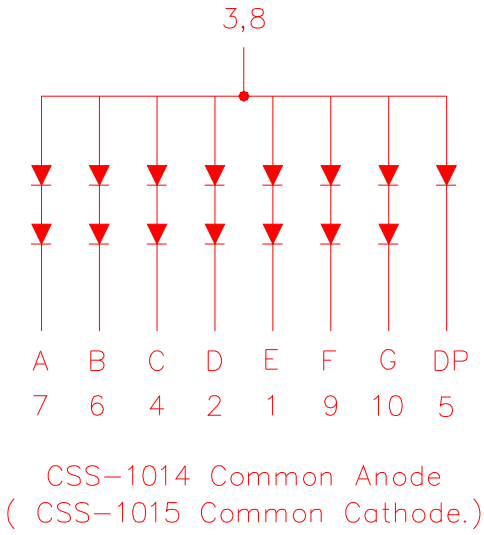
■ Internal Circuit Diagrams -





■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	**Pd**	75	mW
Continuous Forward Current Per Dice	**I_{AF}**	30	mA
Peak Current Per Dice (duty cycle 1/10, 1KH	**I_{PF}**	120	mA
Derating Linear From 25℃ Per Dice	-	0.42	mA/℃
Reverse Voltage Per Dice	**V_R**	5	V
Operating Temp.	**Topr**	-35 ~ +85	℃
Storage Temp.	**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 (DP)	V_F	-	3.6(1.8)	5.0(2.5)	V	I_F=20mA
Luminous Intensity Per Segment	Iv	-	12	-	mcd	I_F=20mA
Peak Emission Wavelength	λp	-	660	-	nm	I_F=20mA
Dominant Wavelength	λd	-	643	-	nm	I_F=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	I_F=20mA
Reverse Current	IR	-	-	100	μA	V_R=10V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	I_F=20mA

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

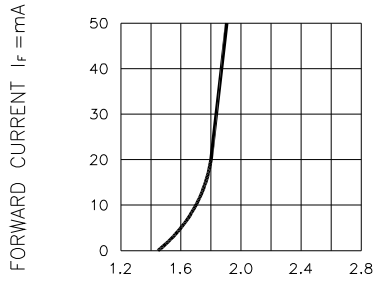

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

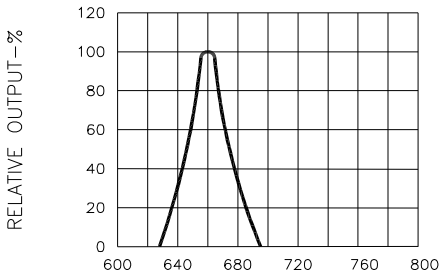

Fig.2 SPECTRAL RESPONSE

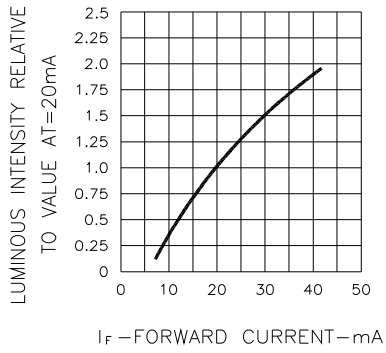

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

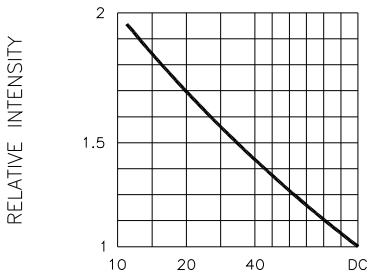

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

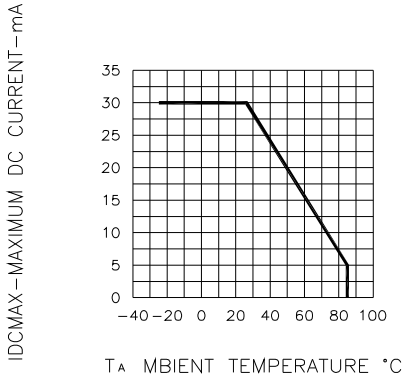

Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

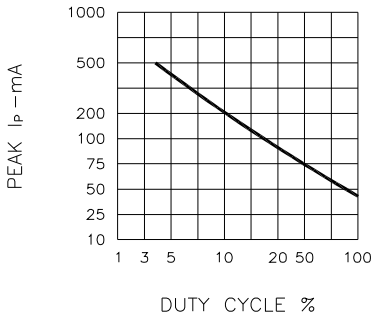

Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

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■ Package Dimensions