



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

PRODUCT SPECIFICATION

Model No : CSS-1018S/1019S

Descriptions:

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



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			陳新強

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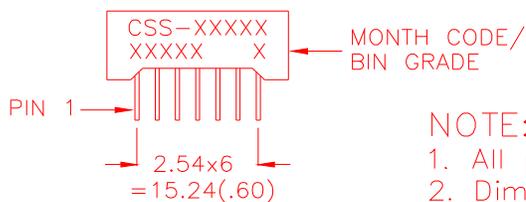
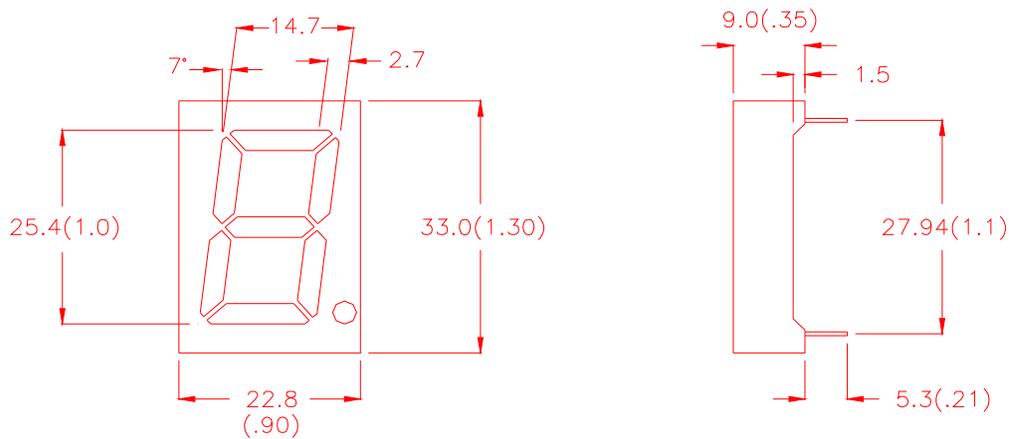
Features -

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 -

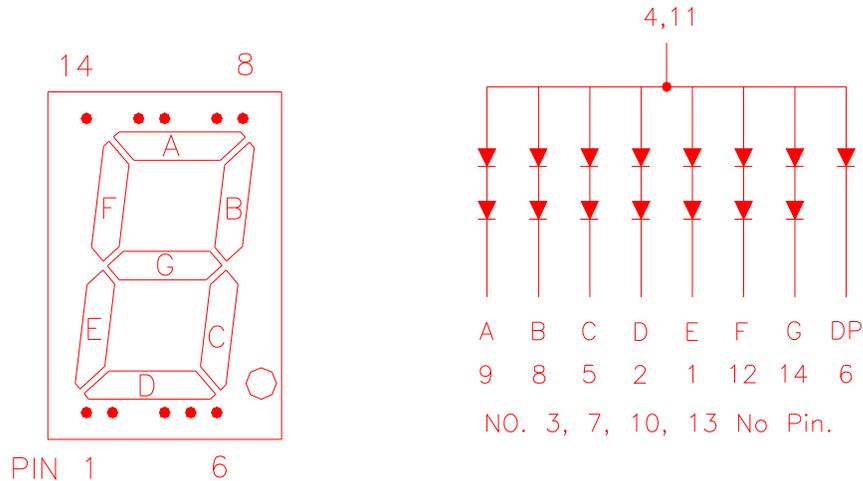
Part No.	Chip		Description
	Material	Emitted Color	
CSS-1018S	AlGaAs	Super Bright Red	Common Anode
CSS-1019S	AlGaAs	Super Bright Red	Common Cathode

Mechanical Dimensions -



NOTE:

1. All pins are $\phi 0.5(.02)$.
2. Dimension in millimeter (inch), and tolerance is $\pm 0.25 (.01)$ unless otherwise noted.


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Internal Circuit Diagrams -


CSS-1018 Common Anode.
(CSS-1019 Common Cathode.)

Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	75	mW
Continuous Forward Current Per Dice	IAF	30	mA
Peak Current Per Dice (duty cycle 1/10, 1KHz)	IPF	120	mA
Derating Linear From 25°C Per Dice	-	0.42	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	Topr	-35 ~ +85	°C
Storage Temp.	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	-	3.6(1.8)	5.0(2.5)	V	If=20mA
Luminous Intensity Per Segment	Iv	-	15	-	mcd	If=20mA
Peak Emission Wavelength	λ_p	-	660	-	nm	If=20mA
Dominant Wavelength	λ_d	-	643	-	nm	If=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	If=20mA
Reverse Current	IR	-	-	100	μA	VR=10V
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)

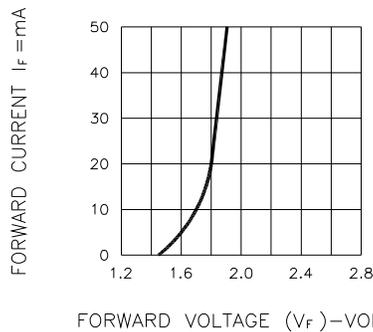


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

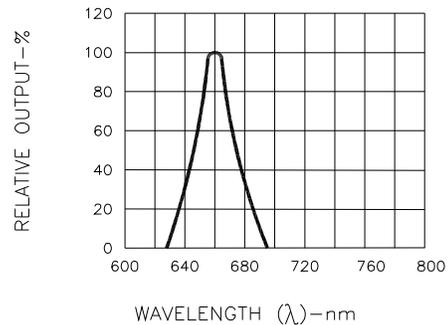


Fig.2 SPECTRAL RESPONSE

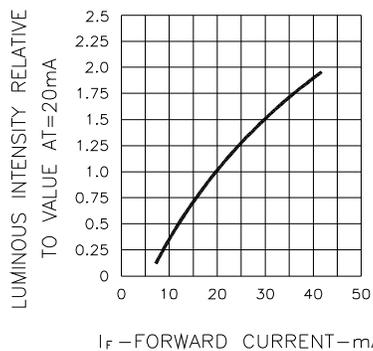


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

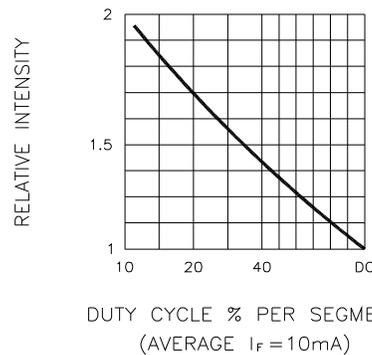


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

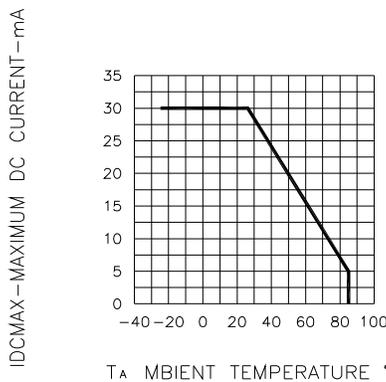


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

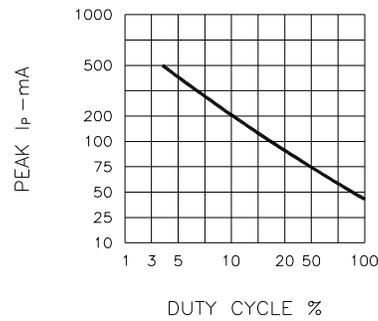


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

