



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

PRODUCT SPECIFICATION

Model No : CSS-1014S/1015S

Descriptions:
<ul style="list-style-type: none"> • 1.0 Inch Single Digit Display • Emitting Color : Super Bright Red



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			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:86-0575-8623888
Fax:86-0575-8623112



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

Model No : CSS-1014S/1015S

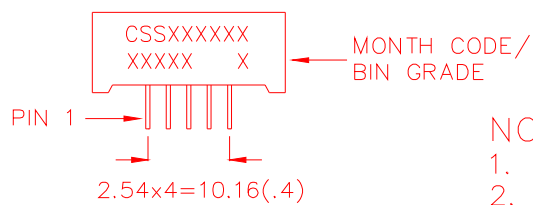
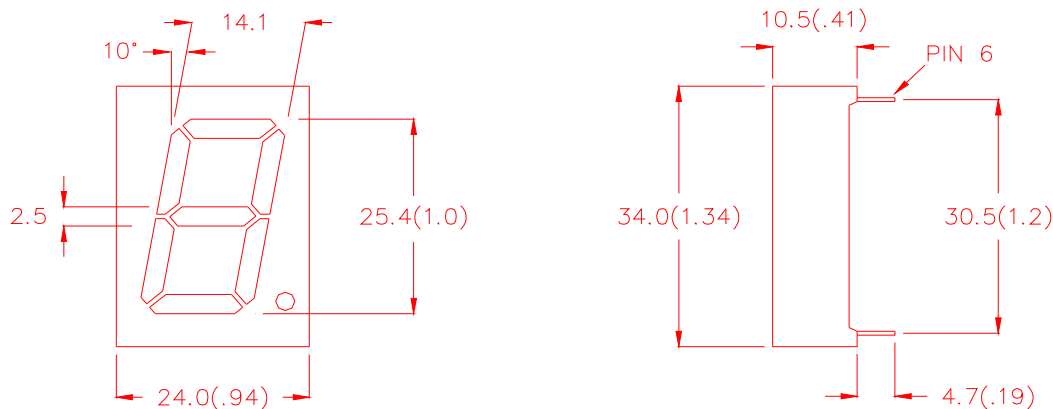
Features -

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:

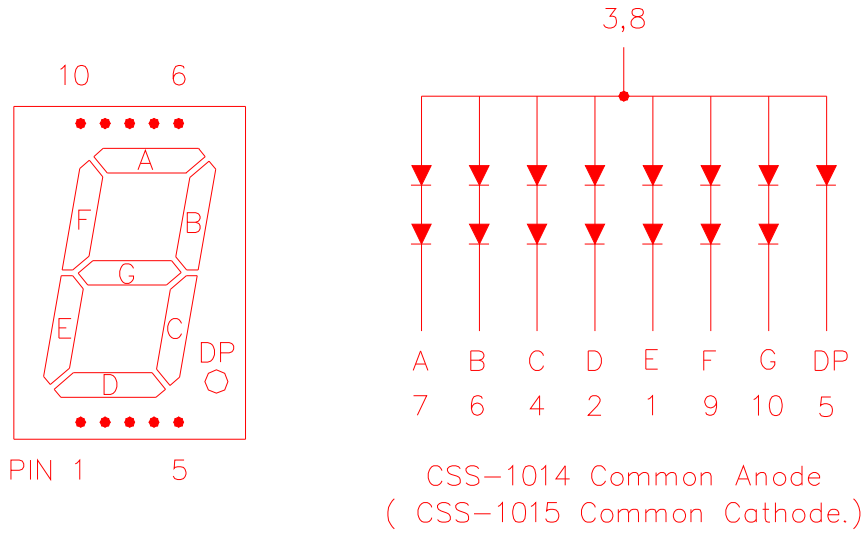
1. All pins are $\phi 0.5(.02)$.
2. Dimension in millimeter (inch), and tolerance is $\pm 0.25 (.01)$ unless otherwise noted.



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

Model No : CSS-1014S/1015S

Internal Circuit Diagrams -



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, 1KH)	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			



Model No : CSS-1014S/1015S

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment (DP)	V_F	-	3.6(1.8)	5.0(2.5)	V	$I_F=20\text{mA}$
Luminous Intensity Per Segment	I_v	-	12	-	mcd	$I_F=20\text{mA}$
Peak Emission Wavelength	λ_p	-	660	-	nm	$I_F=20\text{mA}$
Dominant Wavelength	λ_d	-	643	-	nm	$I_F=20\text{mA}$
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	$I_F=20\text{mA}$
Reverse Current	I_R	-	-	100	μA	$V_R=10\text{V}$
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	$I_F=20\text{mA}$



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

Model No : CSS-1014S/1015S

■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

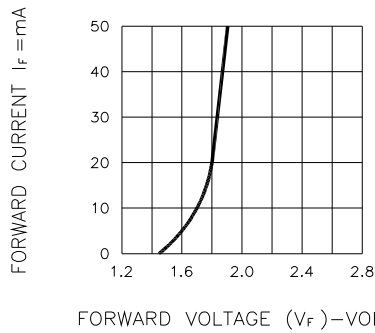


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

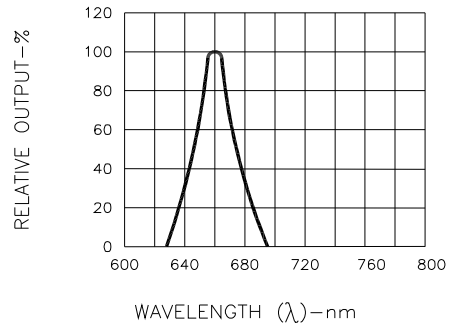


Fig.2 SPECTRAL RESPONSE

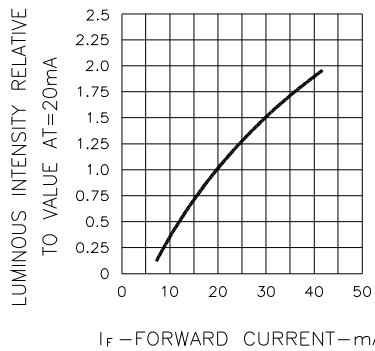


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

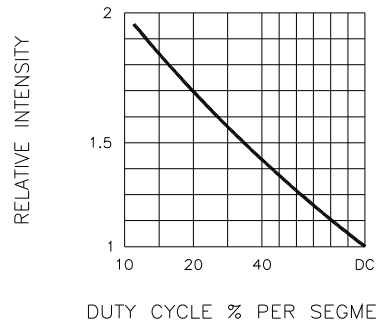


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

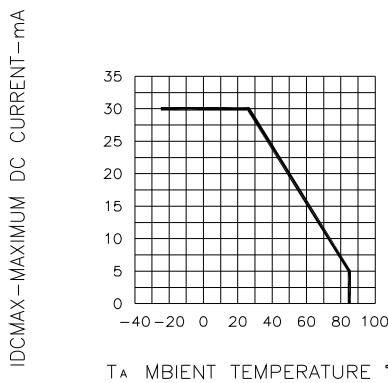


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

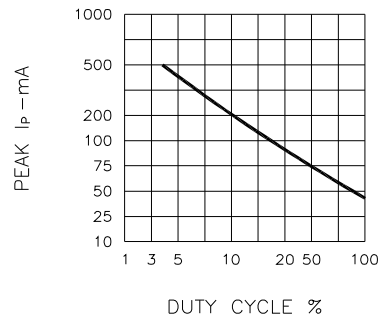


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)



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

Model No : CSS-1014S/1015S

■ Package Dimensions

