

PRODUCT SPECIFICATION

Model No : CSS-15104S/15105S

Descriptions:

- 1.5 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

<http://www.csctw.com.tw>

Model No : CSS-15104S/15105S

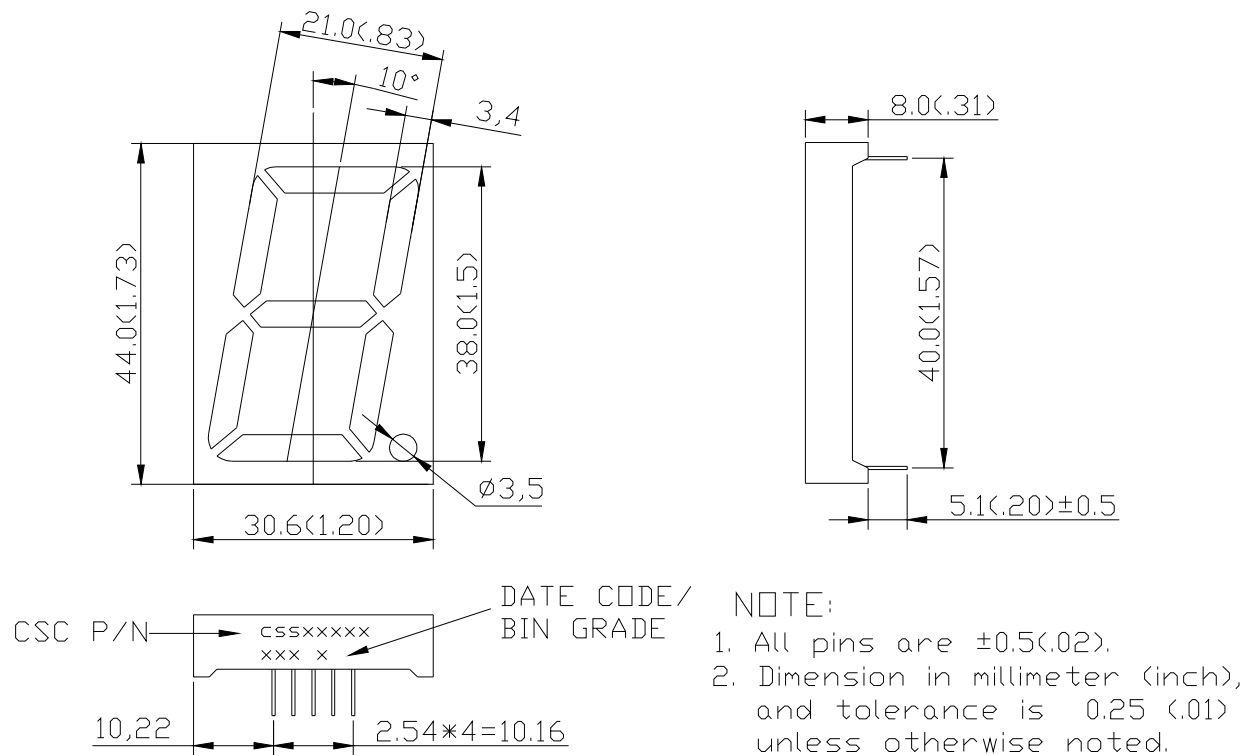
■ Features -

1. 1.5 inch (38.0mm) 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 -

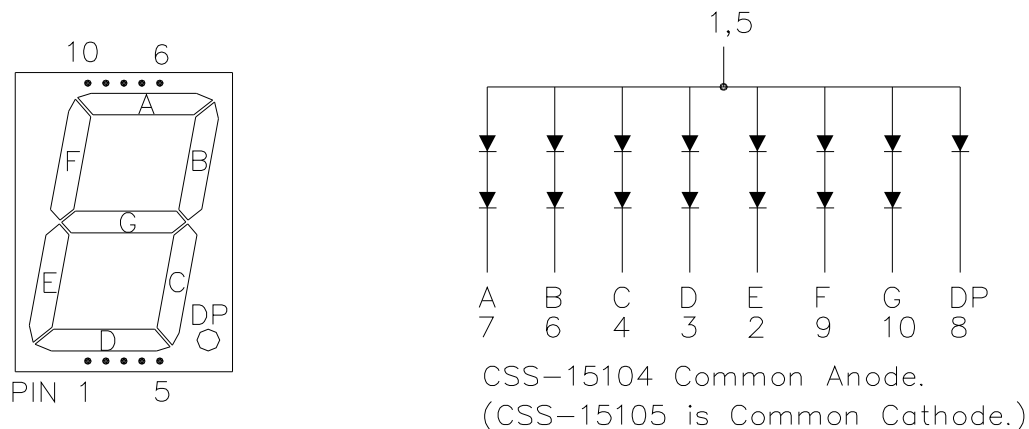
Part No.	Chip		Description
	Material	Emitted Color	
CSS-15104S	AlGaAs	Super Bright Red	Common Anode
CSS-15105S	AlGaAs	Super Bright Red	Common Cathode

■ Mechanical Dimensions -



Model No : CSS-15104S/15105S

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 1/10,1KHz)	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			

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

Model No : CSS-15104S/15105S

■ 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

Model No : CSS-15104S/15105S

Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

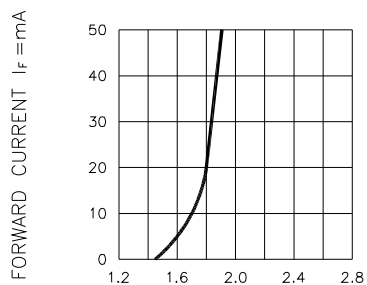


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

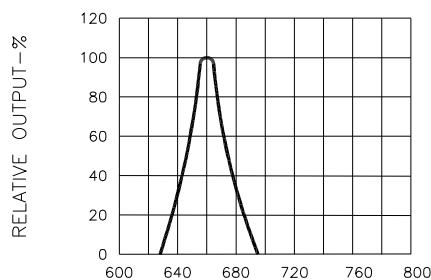


Fig.2 SPECTRAL RESPONSE

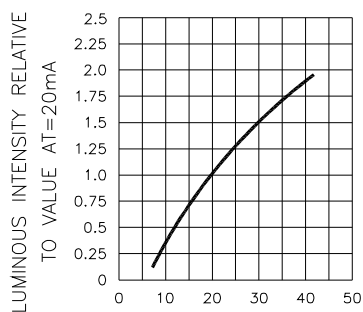


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

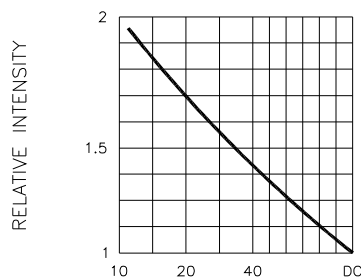


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE
(AVERAGE If = 10mA)

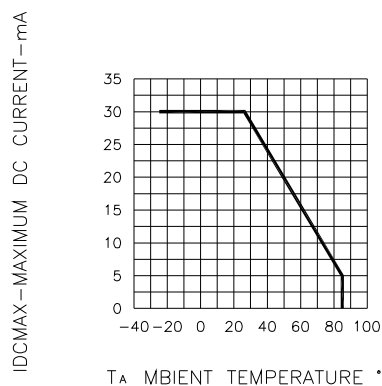


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

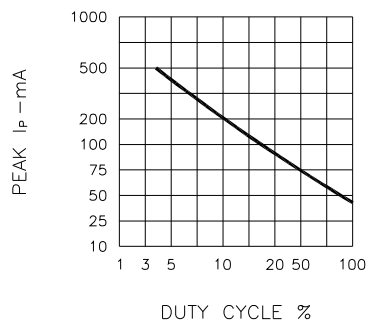
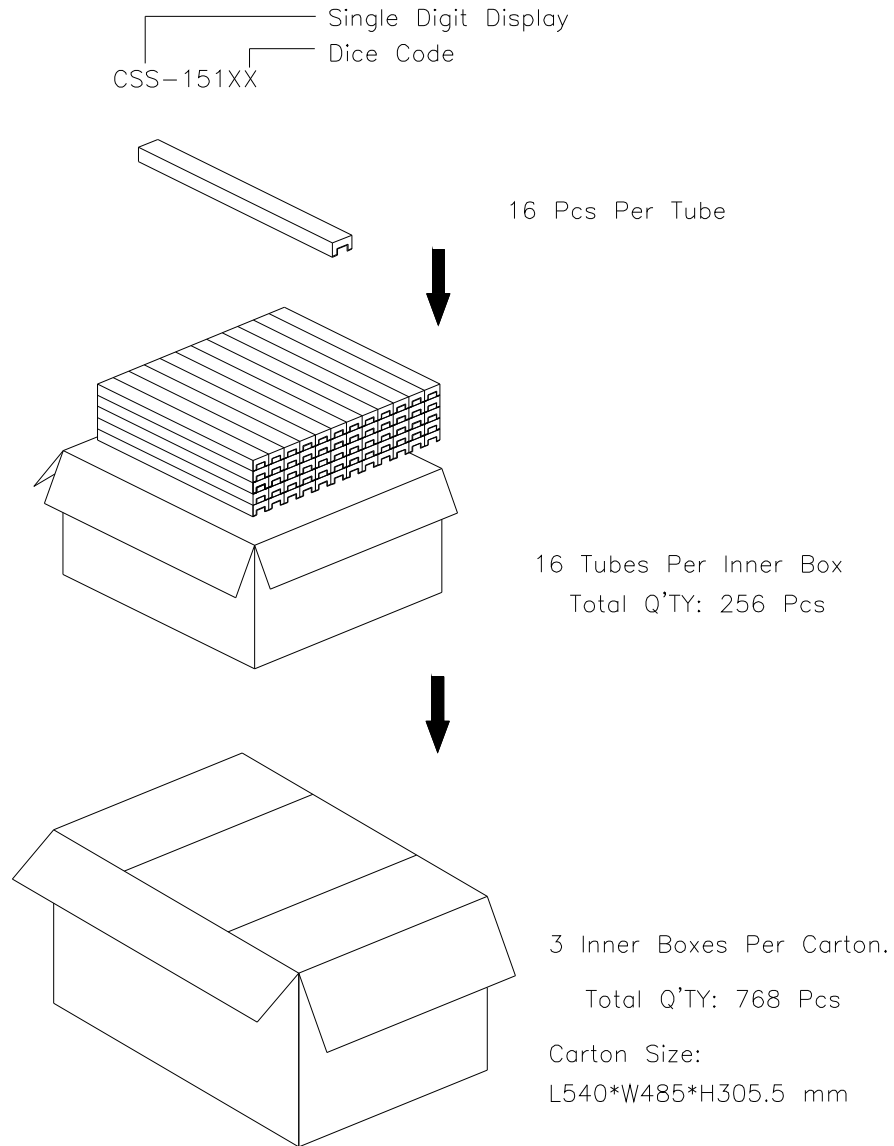


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE f = 1 KHz)

Model No: CSS-15104S/15105S

■ Package Dimensions



Note: The specifications are subject to change without notice. Please contact us for updated information
<http://www.csctw.com.tw>