



PRODUCT SPECIFICATION

Model No : CSS-3108B7/3109B7

Descriptions:

- 0.31 Inch Single Digit Display
- Emitting Color : Super Bright Blue



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:86-0575-88623888
Fax:86-0575-88623112



Model No : CSS-3108B7/3109B7

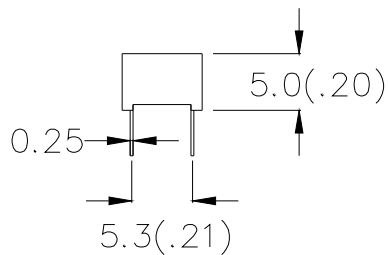
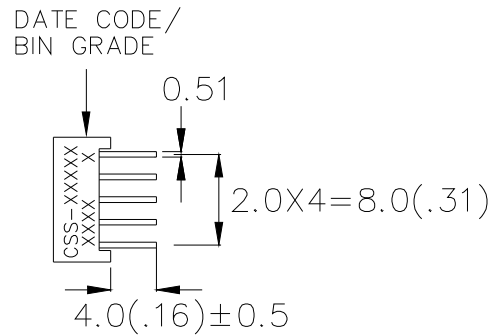
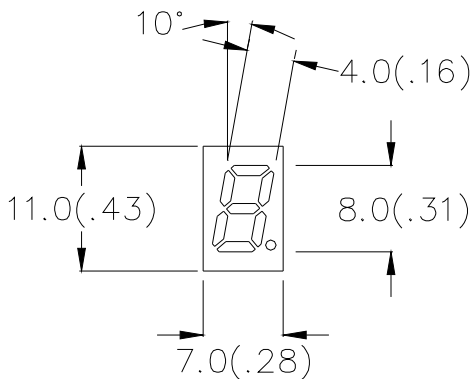
Features -

1. 0.30 inch (7.8mm) 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 -

Model No.	Chip		Description
	Material	Emitted Color	
CSS-3108B7	InGaN	Super Bright Blue	Common Anode
CSS-3109B7	InGaN	Super Bright Blue	Common Cathode

Mechanical Dimensions -



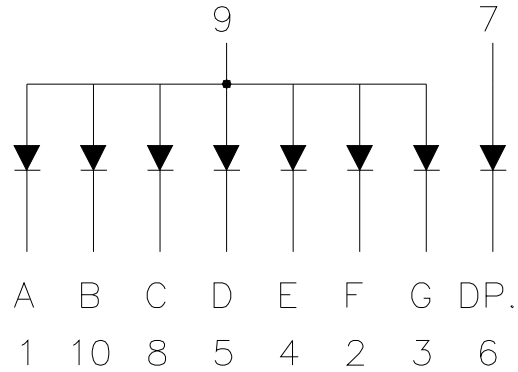
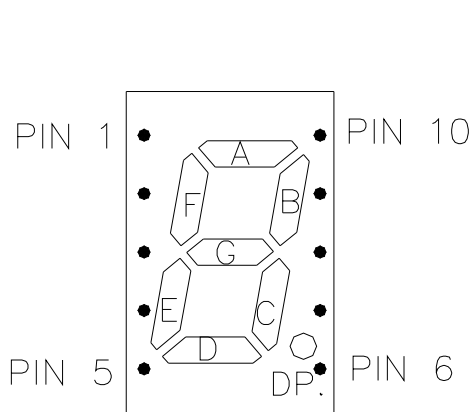
NOTE:

1. Dimension in millimeter (inch), and tolerance is ± 0.25 (.01) unless otherwise noted.



Model No : CSS-3108B7/3109B7

■ Internal Circuit Diagrams -



CSS-3108 Common Anode.
(CSS-3109 is Common Cathode.)

■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	120	mW
Continuous Forward Current Per Dice	IAF	30	mA
Peak Current Per Dice	IPF	100	mA
Continuous Forward Current Per Dice	-	0.4	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temperature	Topr	-35 ~ +85	°C
Storage Temperature	Tstg	-35 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260 °C			



Model No : CSS-3108B7/3109B7

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	VF	-	3.5	4	V	IF=20mA
Luminous Intensity Per Segment	Iv	4800	12000	-	ucd	IF=10mA
Peak Emission Wavelength	λP	-	468	-	nm	IF=20mA
Dominant Wavelength	λd	-	470	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	μA	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA



Model No : CSS-3108B7/3109B7

■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

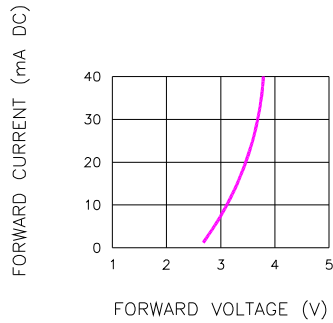


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

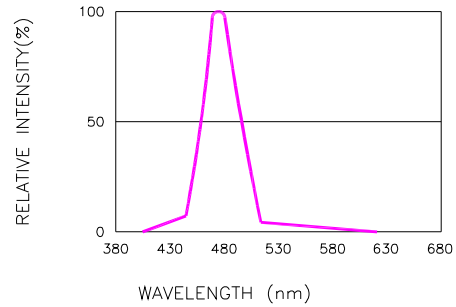


Fig.2 RELATIVE INTENSITY VS. WAVELENGTH

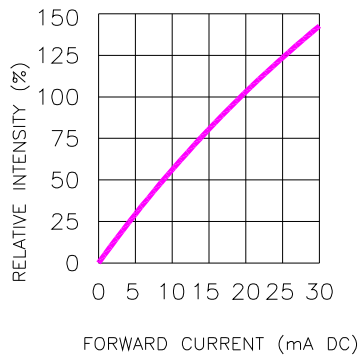


Fig.3 RELATIVE INTENSITY VS. FORWARD CURRENT

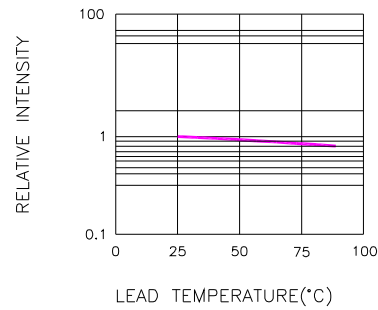


Fig.4 RELATIVE INTENSITY VS. LEAD TEMPERATURE
(PULSED 20 mA; 300us
PULSE, 10ms PERIOD)

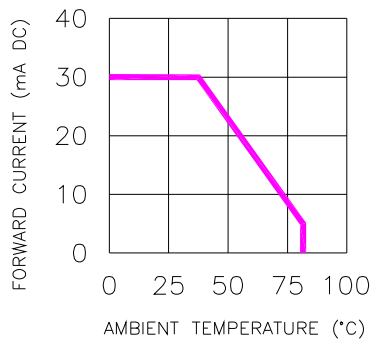


Fig.5 FORWARD CURRENT VS. AMBIENT TEMPERATURE

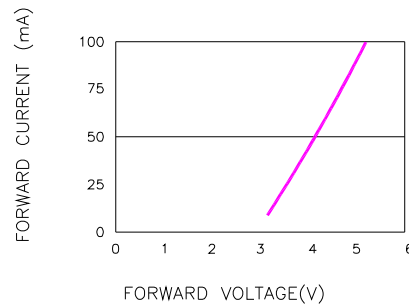


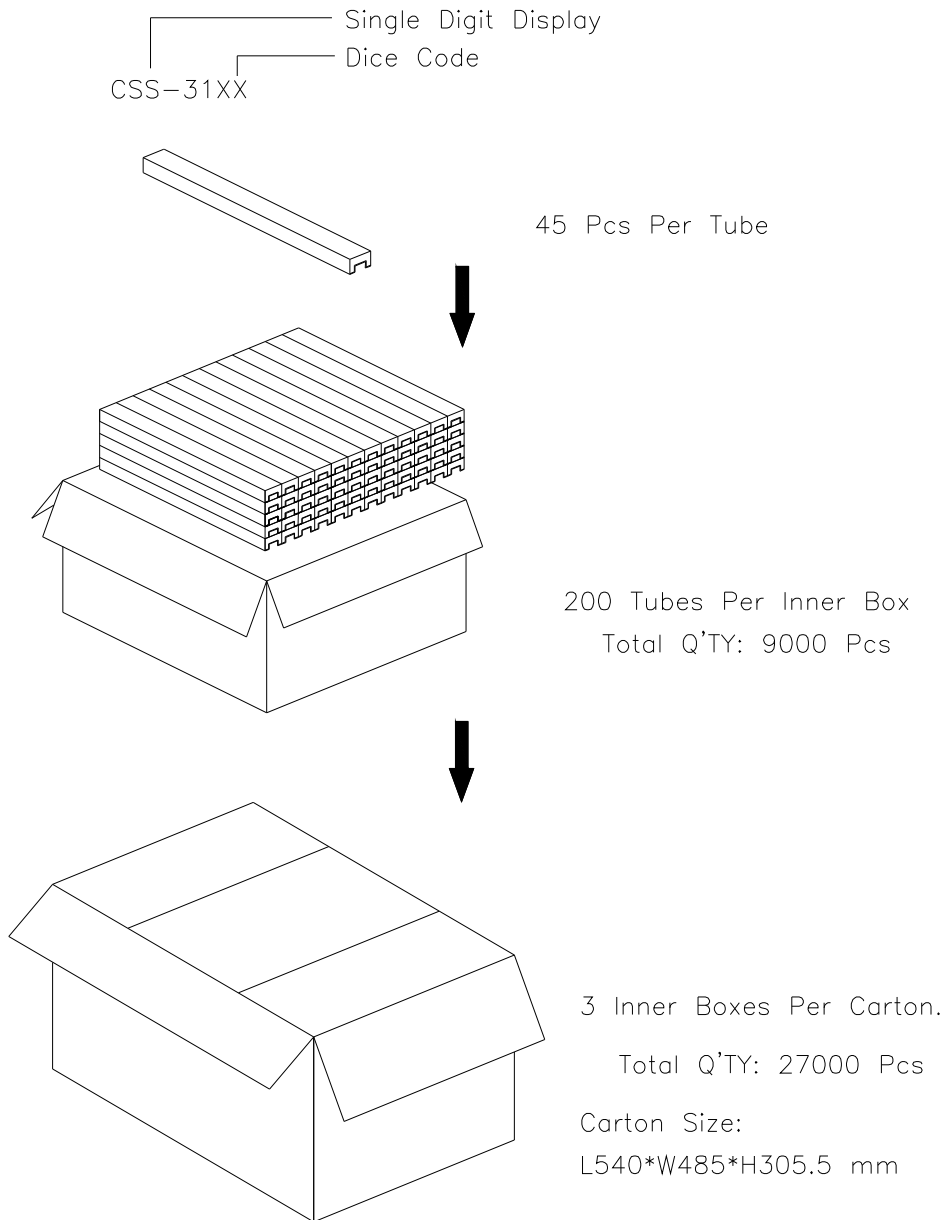
Fig.6 PEAK FORWARD VOLTAGE VS. FORWARD(100us TEST PULSE, 1% DUTY CYCLE)



Spec. No.	PS-ND-0807
Rev.	A

Model No : CSS-3108B7/3109B7

■ **Package Dimensions**



Note: The specifications are subject to change without notice. Please contact us for updated informatio

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