



CHINA
SEMICONDUCTOR
CORPORATION

Spec. No	PS-ND-0711
Rev.	A

PRODUCT SPECIFICATION

Model No : CSS-2314F-21

Descriptions:

- 2.24 Inch Single Digit Display
- Common Anode
- Emitting Color: Bright Green
- Black Face
- White Segment



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			陳新強

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Model No: CSS-2314F-21

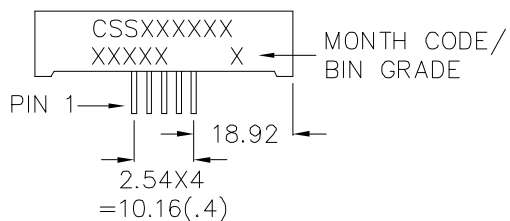
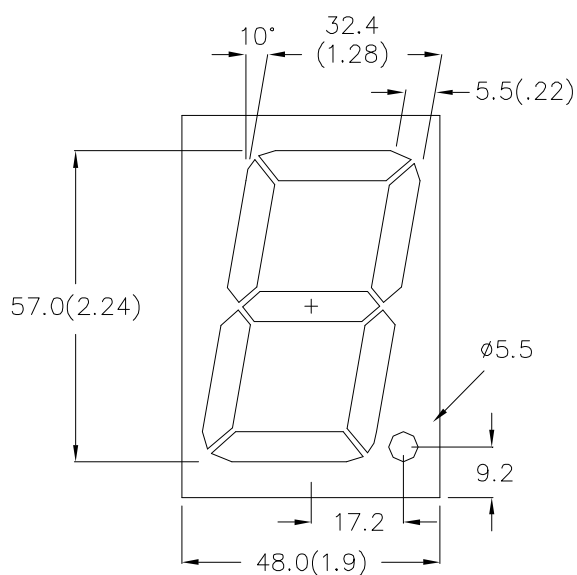
■ **Features -**

1. 2.24 inch (57.0mm) digit height.
2. Case mold type.
3. RoHs compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

■ **Device Selection Guide -**

Part No.	Chip		Face / Segment
	Material	Emitted Color	
CSS-2314F	GaP	Bright Green	Black / White

■ **Package Dimensions -**



NOTE:

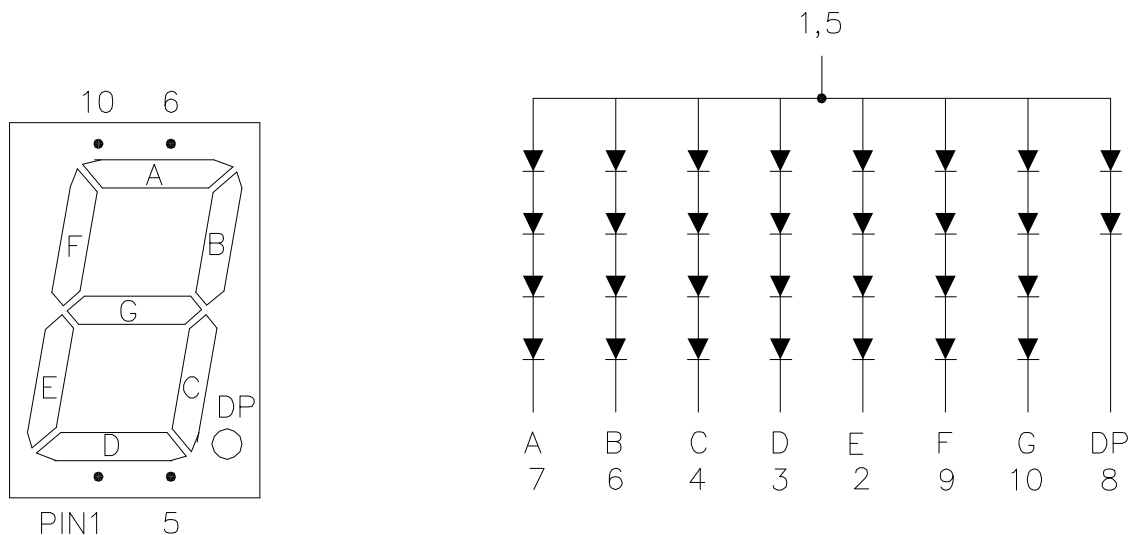
- 1 All pins are $\phi 0.6(.02)$.
- 2 Dimension in millimeter (inch), and tolerance is $\pm 0.25 (.01)$ unless otherwise noted.



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Internal Circuit Diagrams -



Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	85	mW
Continuous Forward Current Per Dice	IAF	30	mA
Peak Current Per Dice	IPF	120	mA
Derating Linear From 25°C Per Dice	-	0.42	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	Topr	-25 ~ +85	°C
Storage Temp.	Tstg	-25 ~ +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)

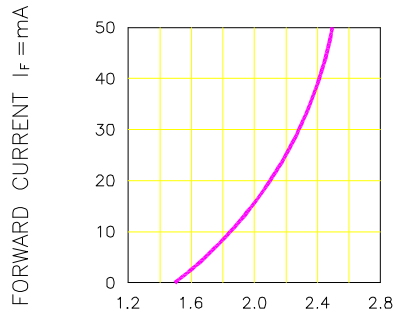
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V _F	-	8.4(4.2)	11.2(5.6)	V	I _F =20mA
Luminous Intensity Per Segment	I _v		24	-	mcd	
Peak Emission Wavelength	λ _p	-	570	-	nm	
Spectrum Radiation Bandwidth	Δλ	-	30	-	nm	
Reverse Current	I _R	-	-	100	μA	V _R =20V
Luminous Intensity Matching Ratio	I _{V-m}	-	-	2 : 1	I _p =80mA/16Duty	



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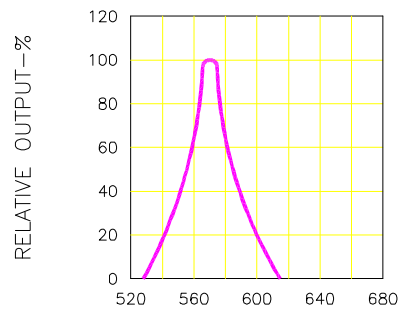
■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)



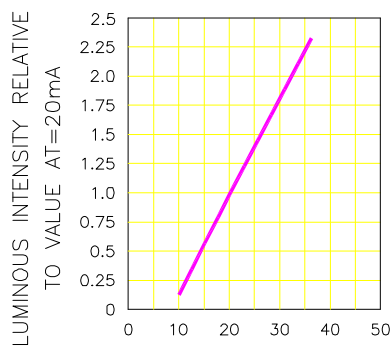
FORWARD VOLTAGE (V_F)—VOLTS

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



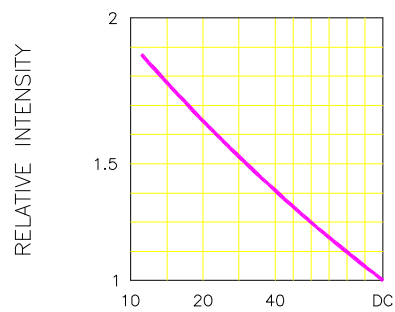
WAVELENGTH (λ)—nm

Fig.2 SPECTRAL RESPONSE



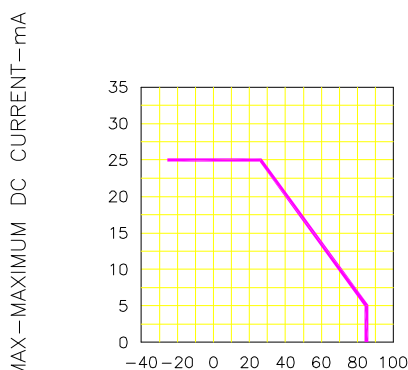
I_F—FORWARD CURRENT—mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



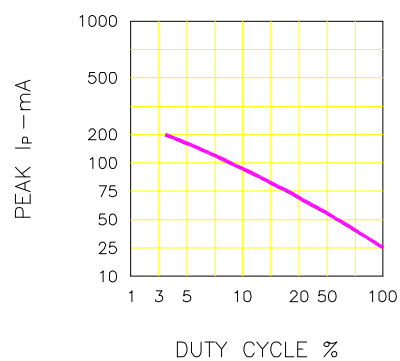
DUTY CYCLE % PER SEGMENT
(AVERAGE I_F = 10 mA)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



T_A AMBIENT TEMPERATURE °C

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



DUTY CYCLE %

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