



PRODUCT SPECIFICATION

Model No: CSS-4012D-21

Descriptions:
<ul style="list-style-type: none"> • 4.0 Inch Single Digit Display Common Anode • Emitting Color: Super Bright Red • Black Face • White Segment



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY
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Spec. No.	PS-ND-0711
Rev.	A

Model No : CSS-4012D-21

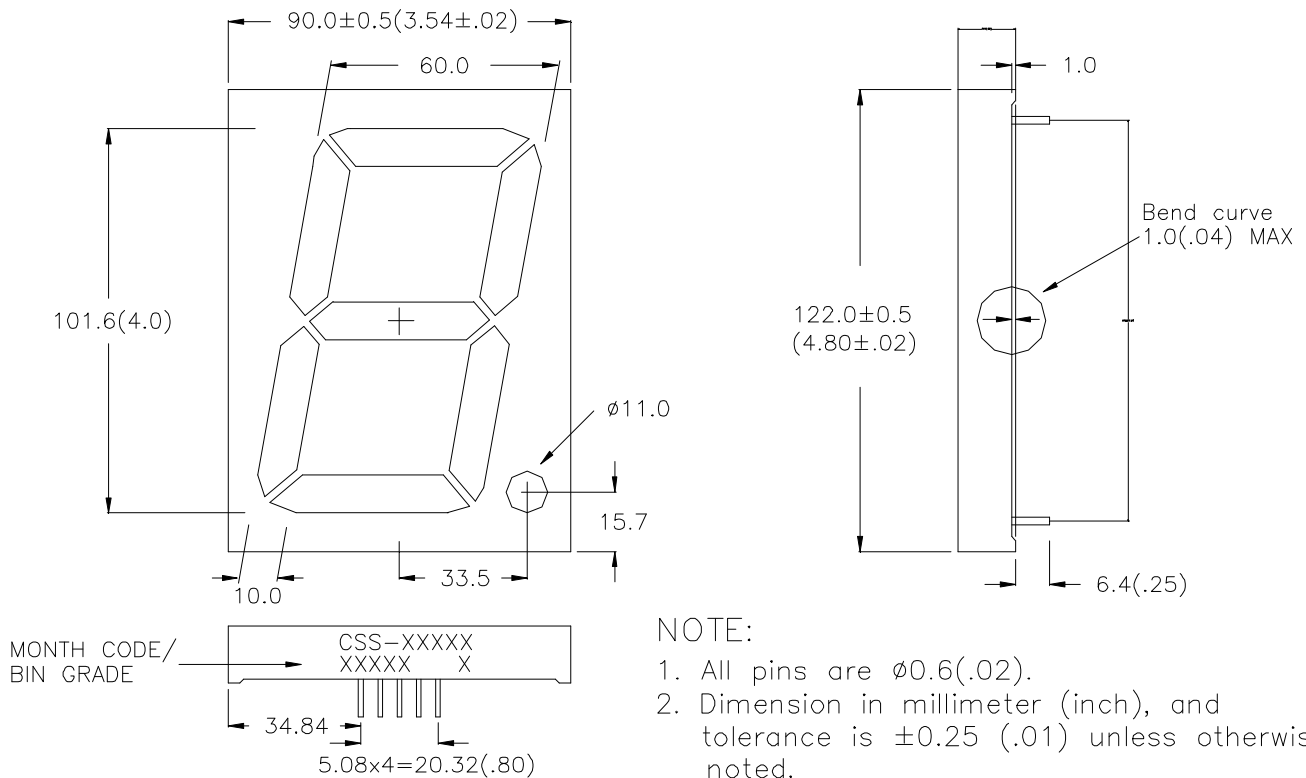
■ Features -

1. 4.0 inch (101.6mm) dight 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		Face / Segment
	Material	Emitted Color	
CSS-4012D	AlGaAs	Super Bright Red	Black / White

■ Package Dimensions



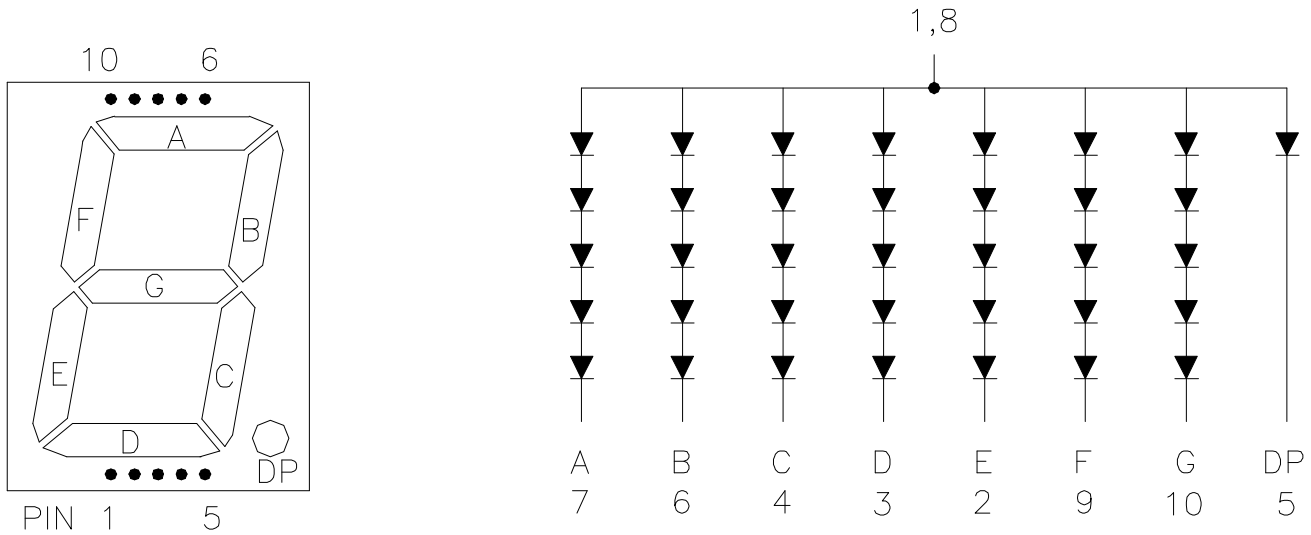
NOTE:

1. All pins are $\phi 0.6$ (.02).
2. Dimension in millimeter (inch), and tolerance is ± 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	75	mW
Continuous Forward Current Per Dice	IAF	30	mA
Peak Current Per Dice	IPF	200	mA
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	Topr	-25 ~ +85	°C
Storage Temp.	Tstg	-25 ~ +85	°C
Solder emperature 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)	V_F	-	9.0(1.8)	12.5(2.5)	V	$I_F=20mA$
Luminous Intensity Per Segment	I_v	-	100	-	mcd	
Peak Emission Wavelength	λ_P	-	660	-	nm	
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	
Reverse Current	I_R	-	-	100	μA	$V_R=25V$



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■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

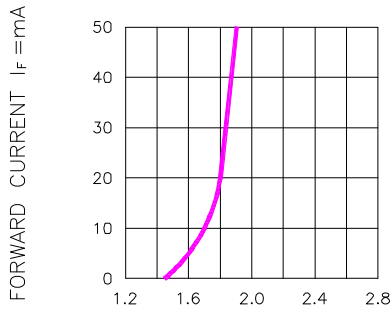


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

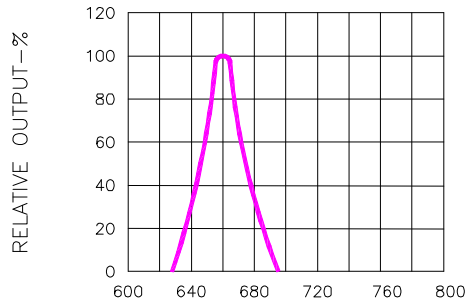


Fig.2 SPECTRAL RESPONSE

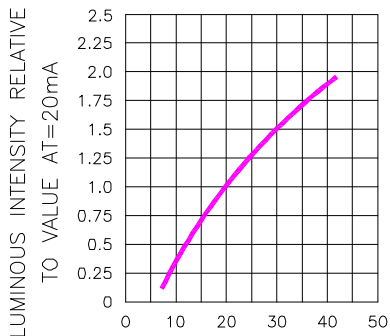


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

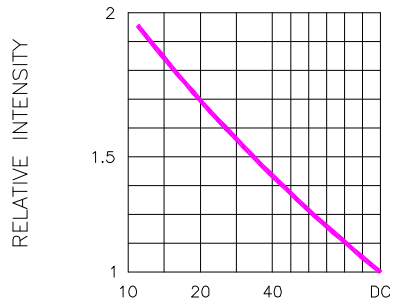


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

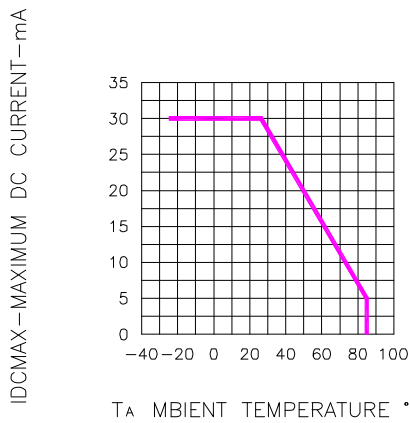


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

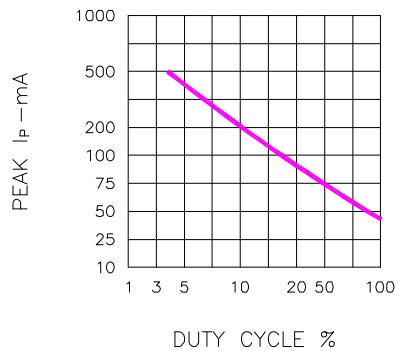


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)



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