CHINA
SEMICONDUCTOR
CORPORATION

Spec. No.	PS-ND-08090307
Rev.	A

PRODUCT SPECIFICATION

Model No：CSM-58111A9/58121A9

Descriptions:

- 1.4 Inch 5X8 Dot-Matrix Display
- Dot Pitch 4.7mm
- CSM-58111: Column Anode, Row Cathode
- CSM-58121: Column Cathode, Row Anode
- Emitting Color: Super Bright Amber

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

CHINA SEMICONDUCTOR CORPORATION
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http://www.csctw.com.tw

Model No：CSM-16151/16161A9

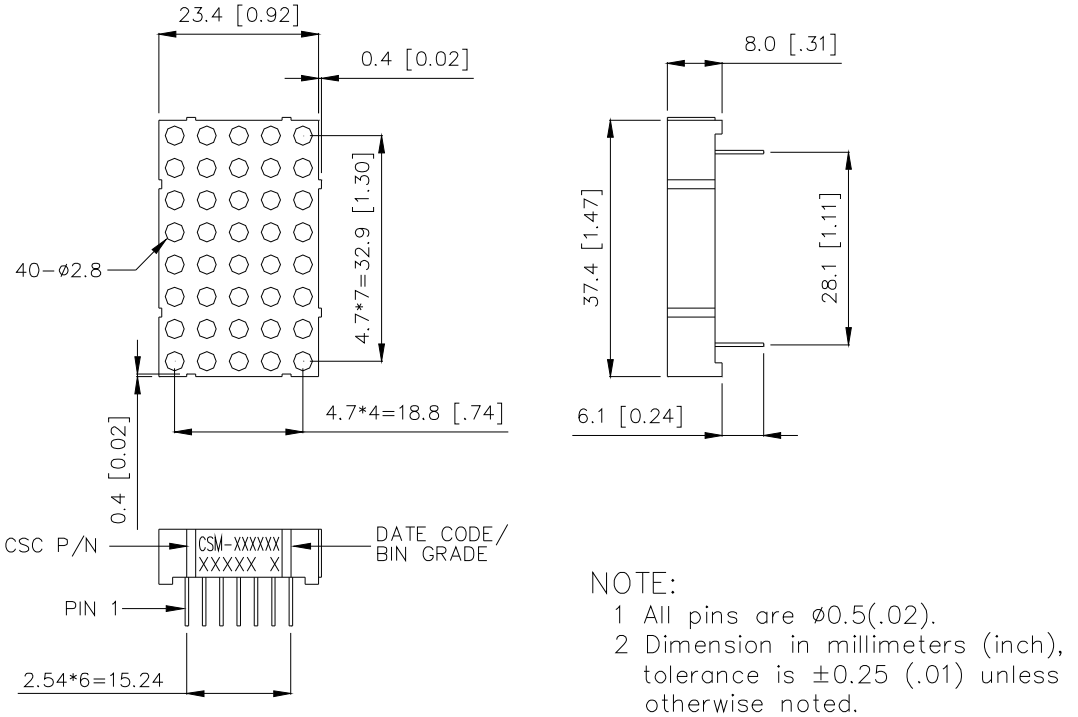
■ Features -

1. 1.4 inch (35.7mm) Matrix 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		Column	Row
	Material	Emitted Color		
CSM-58111A9	AlGaInP	Super Bright Amber	Anode	Cathode
CSM-58121A9	AlGaInP	Super Bright Amber	Cathode	Anode

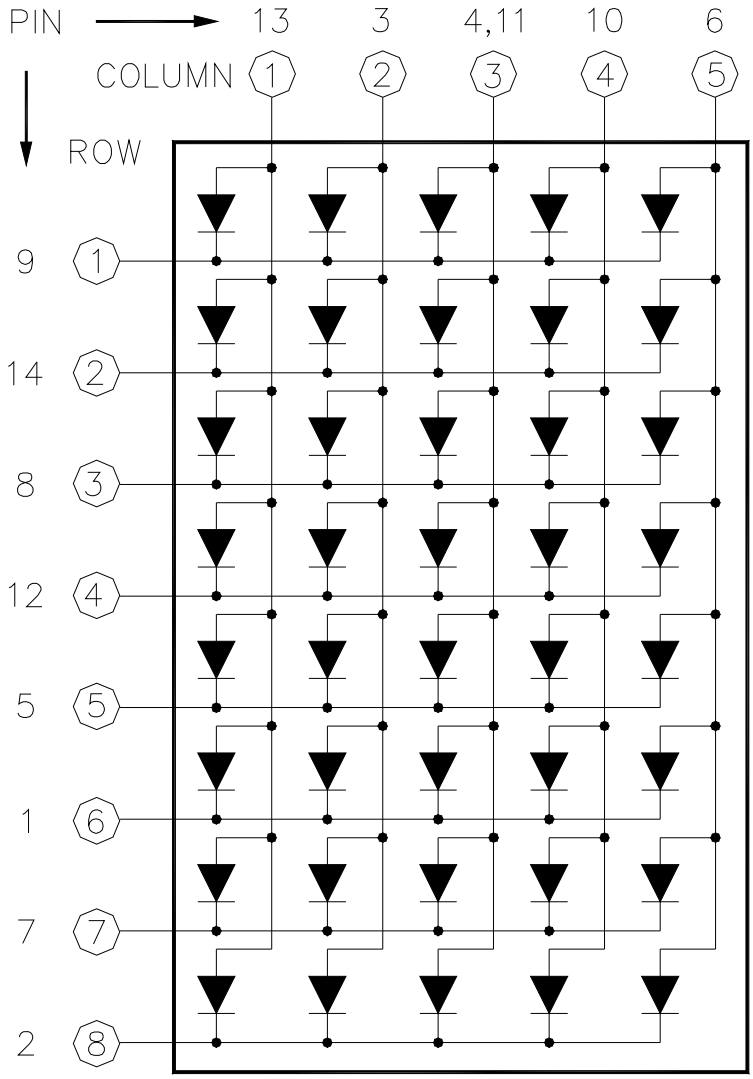
■ Package Dimensions -



NOTE:
1 All pins are ø0.5(.02).
2 Dimension in millimeters (inch), tolerance is ±0.25 (.01) unless otherwise noted.

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■ **Internal Circuit Diagrams -**



CSM－58111Column Anode, Row Cathode.
(CSM－58121 Column Cathode, Row Anode.)

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■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	Pd	75	mW
Continuous Forward Current Per Dice	I_{AF}	25	mA
Peak Current Per Dice(duty cycle 1/10, 1kHz)	I_{PF}	90	mA
Derating Linear From 25℃ Per Dice	-	0.33	mA/℃
Reverse Voltage Per Dice	V_R	5	V
Operating Temp.	Topr	-35 ~ +85	℃
Storage Temp.	Tstg	-35 ~ +85	℃
Solder temperature 1/16 inch below seating plane for 3 seconds at 260℃			

■ Electro-optical Characteristics -

(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	VF	-	2.0	2.8	V	I_F=20mA
Luminous Intensity Per Segment	Iv	-	20	-	mcd	I_F=10mA
Peak Emission Wavelength	λp	-	612	-	nm	I_F=20mA
Dominant Wavelength	λd	-	606	-	nm	I_F=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	I_F=20mA
Reverse Current	IR	-	-	100	μA	V_R=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	I_F=10mA

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

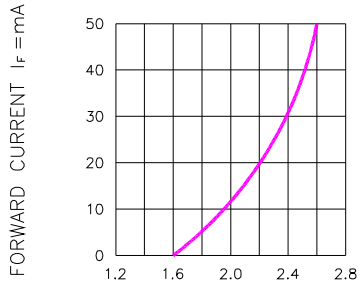


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

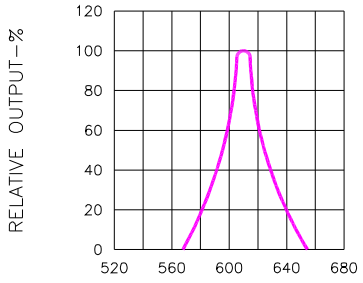


Fig.2 SPECTRAL RESPONSE

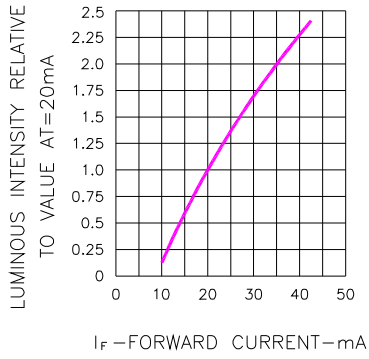


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

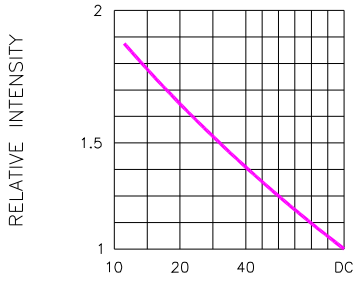


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

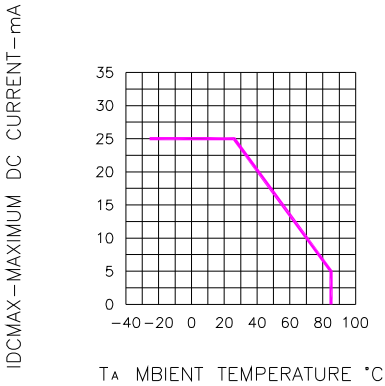


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

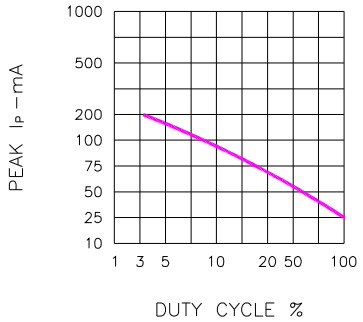


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)