

# PRODUCT SPECIFICATION

**Model No : CSM-88111T9/88121T9**

Descriptions:
<ul style="list-style-type: none"> <li>• 1.2 Inch 8X8 Dot-Matrix Display</li> <li>• Dot Pitch 4.0mm</li> <li>• CSM-88111: Column Anode, Row Cathode</li> <li>• CSM-88121: Column Cathode, Row Anode</li> <li>• Emitting Color: Super Bright Yellow</li> </ul>



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Spec. No.	PS-ND-08090304
Rev.	A

**Model No : CSM-88111T9/88121T9**

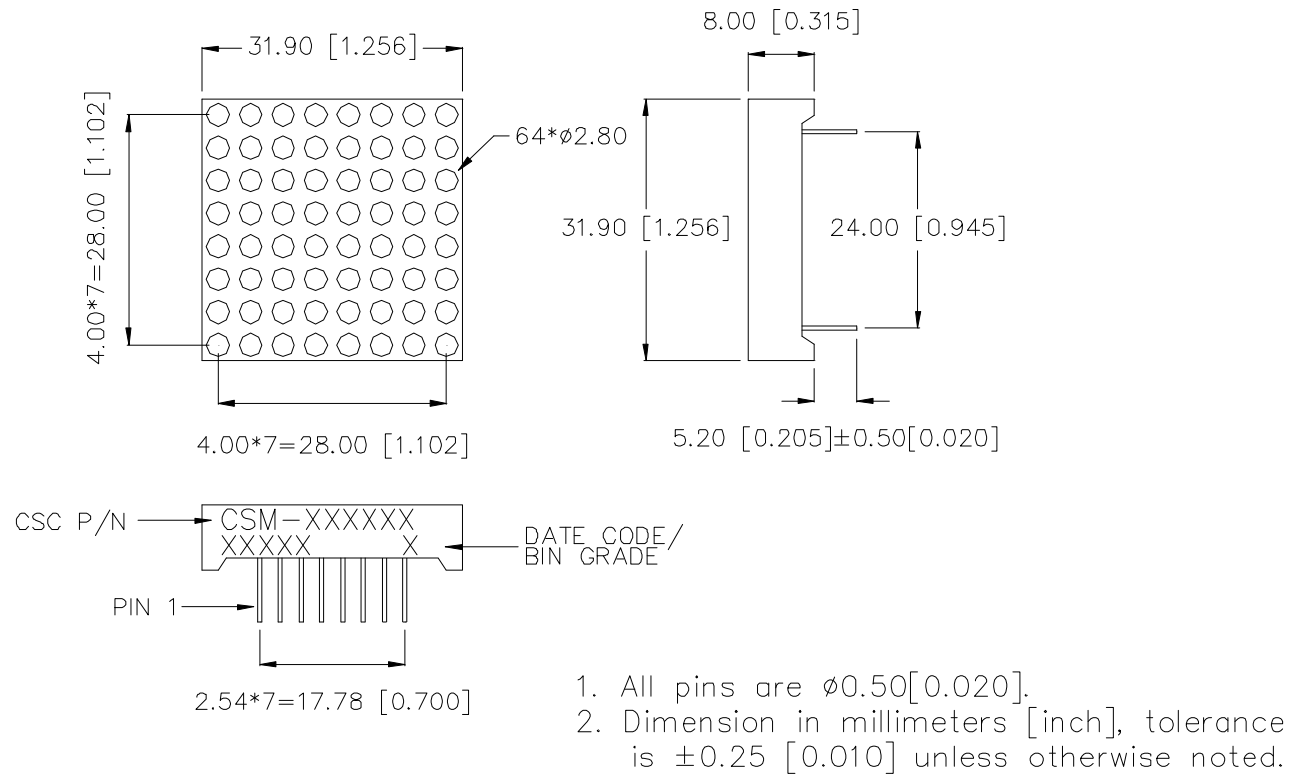
**Features -**

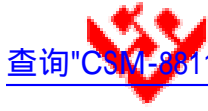
1. 1.2 inch (30.8mm) Matrix height.
2. 8x8 array with X-Y select.
3. RoHS compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

**Device Selection Guide -**

Part No.	Chip		Description	
	Material	Emitted Color	Column	Row
CSM-88111T9	AlGaInP	Super Bright Yellow	Anode	Cathode
CSM-88121T9	AlGaInP	Super Bright Yellow	Cathode	Anode

**Package Dimensions -**

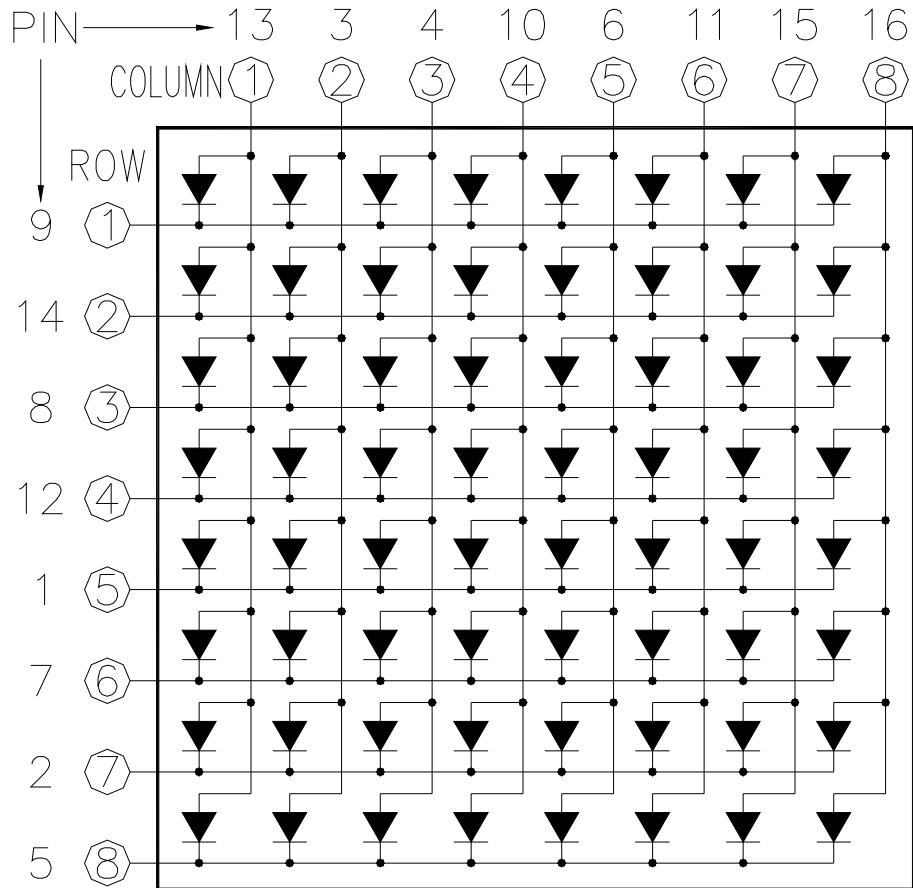




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Internal Circuit Diagrams -



CSM-88111 Column Anode, Row Cathode  
CSM-88121 Column Cathode, Row Anode



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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	<b>PAD</b>	70	mW
Continuous Forward Current Per Dice	<b>IAF</b>	25	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	<b>IPF</b>	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	<b>VR</b>	5	V
Operating Temp.	<b>Topr</b>	-35 ~ +85	°C
Storage Temp.	<b>Tstg</b>	-35 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Dot	<b>VF</b>	-	2.1	2.8	V	IF=20mA
Luminous Intensity Per Dot	<b>Iv</b>	-	25	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$	-	592	-	nm	IF=20mA
Dominant Wavelength	$\lambda_d$	-	590	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	<b>IR</b>	-	-	100	$\mu A$	VR=5V
Luminous Intensity Matching Ratio	<b>IV-m</b>	-	-	2:1		Ip=80mA 1/16Duty



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Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

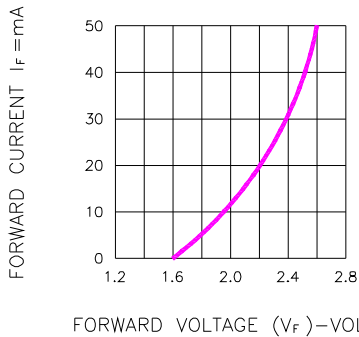


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

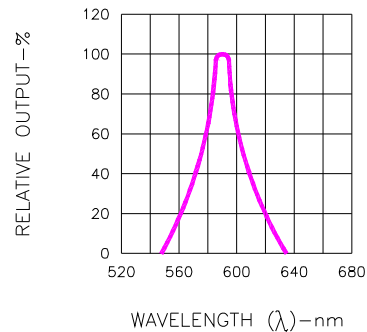


Fig.2 SPECTRAL RESPONSE

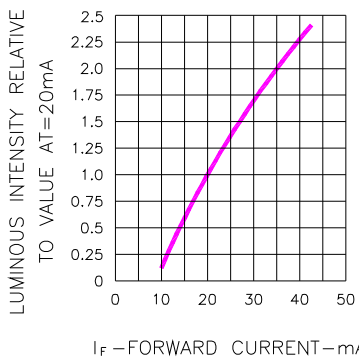


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

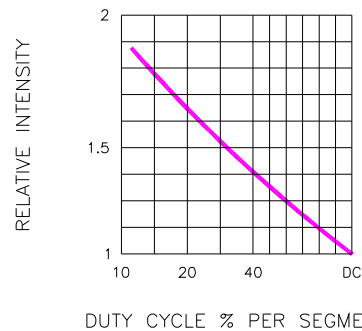


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

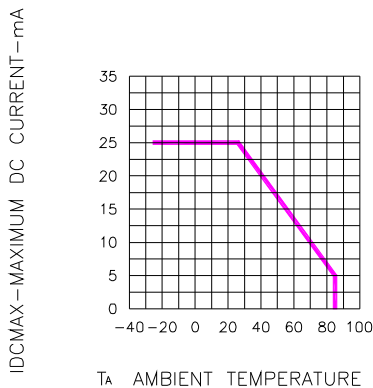


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

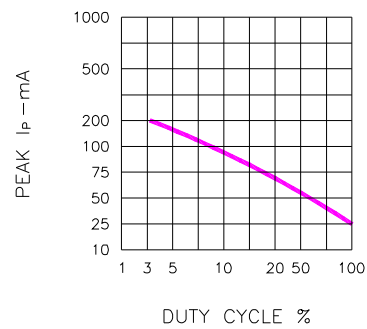


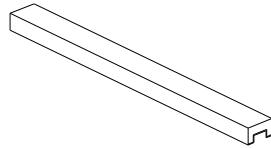
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE (REFRESH RATE f=1 KHz)

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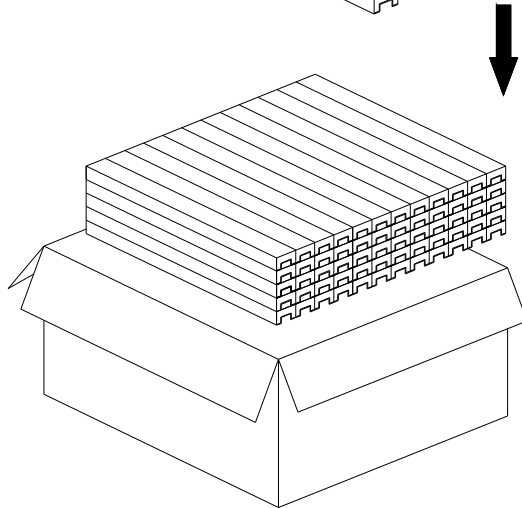
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■ Package Dimensions

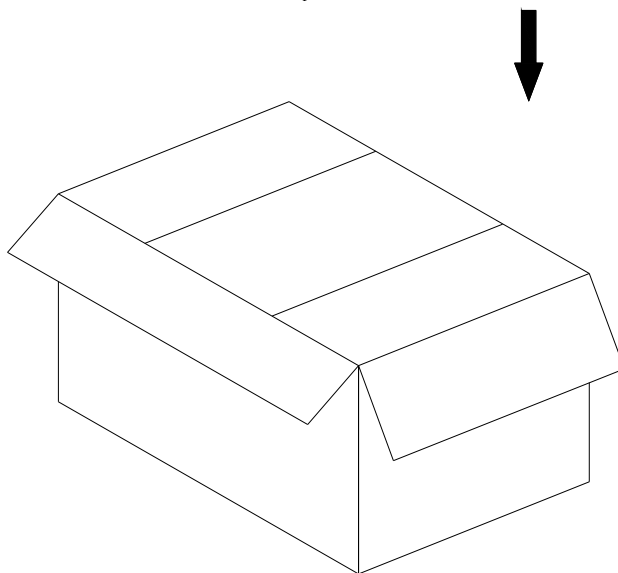
Dot-Matrix Display  
 Dice Code  
 CSM-88111/88121X



15 Pcs Per Tube



42 Tubes Per Inner Box  
Total Q'TY: 630 Pcs



3 Inner Boxes Per Carton.  
Total Q'TY: 1890 Pcs  
Carton Size:  
L540\*W485\*H305.5 mm

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