



PRODUCT SPECIFICATION

Model No : CSM-88111V9/88121V9

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



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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



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

Model No : CSM-88111V9/88121V9

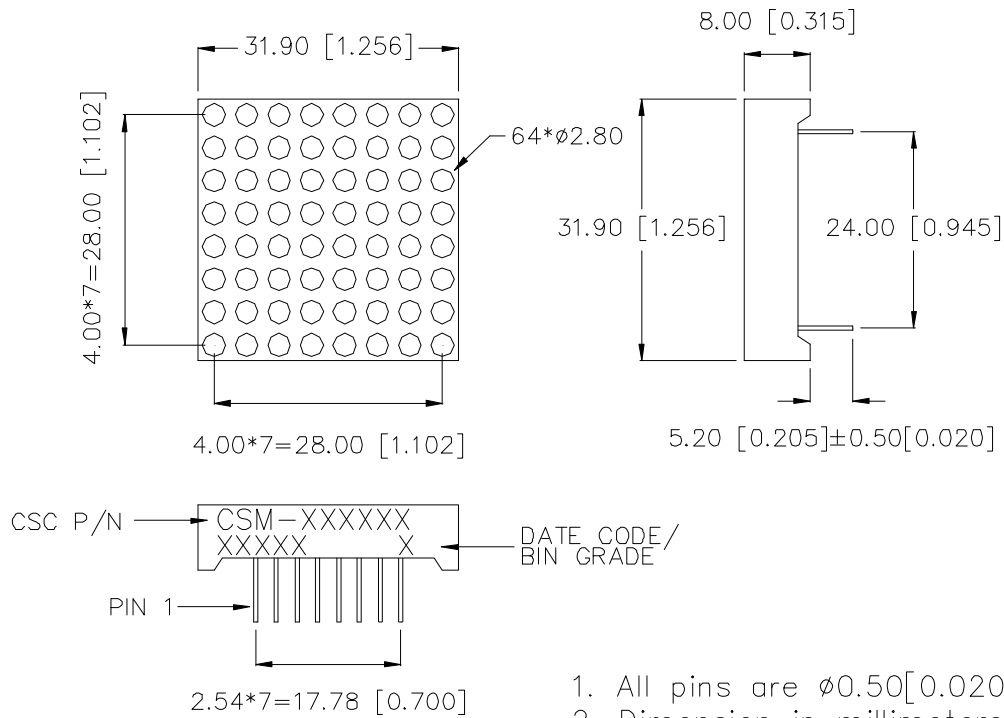
Features -

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-88111V9	AlGaInP	Super Bright Orange	Anode	Cathode
CSM-88121V9	AlGaInP	Super Bright Orange	Cathode	Anode

Package Dimensions -

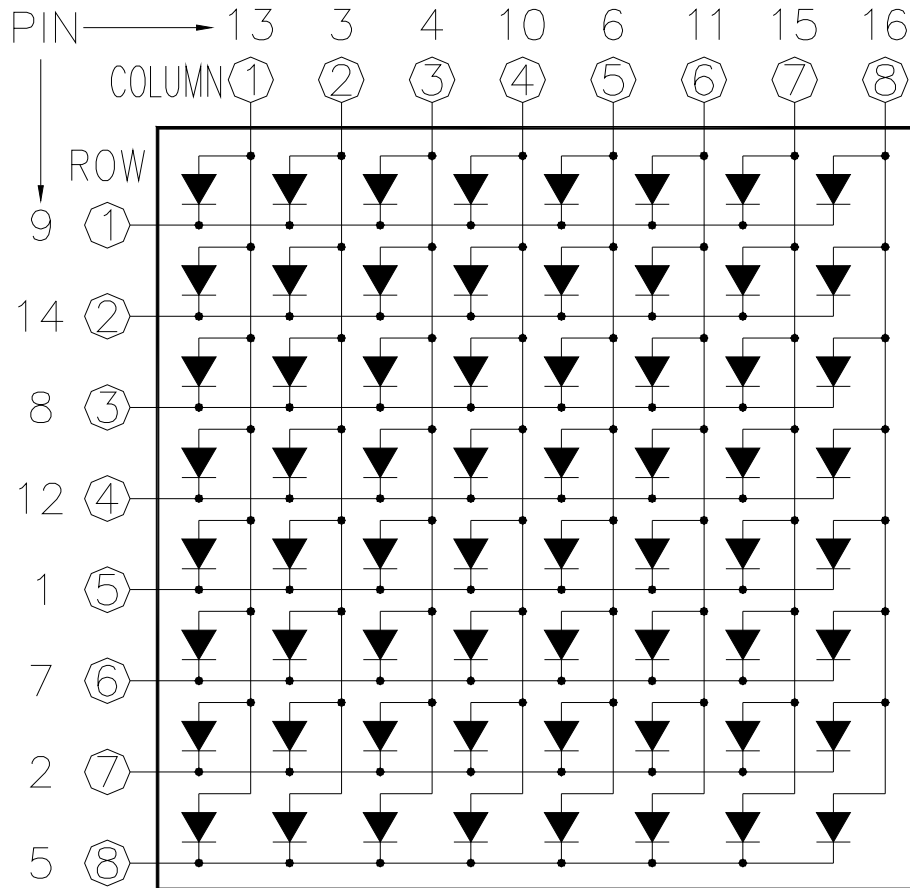


1. All pins are $\phi 0.50 [0.020]$.
2. Dimension in millimeters [inch], tolerance is $\pm 0.25 [0.010]$ unless otherwise noted.



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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	P _{AD}	70	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°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	V _R	5	V
Operating Temp.	T _{opr}	-35 ~ +85	°C
Storage Temp.	T _{stg}	-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	V _F	-	2.0	2.8	V	I _F =20mA
Luminous Intensity Per Dot	I _v	-	25	-	mcd	I _F =10mA
Peak Emission Wavelength	λ _p	-	632	-	nm	I _F =20mA
Dominant Wavelength	λ _d	-	624	-	nm	I _F =20mA
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	I _F =20mA
Reverse Current	I _R	-	-	100	μA	V _R =5V
Luminous Intensity Matching Ratio	I _{V-m}	-	-	2:1		I _p =80mA 1/16Duty



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■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

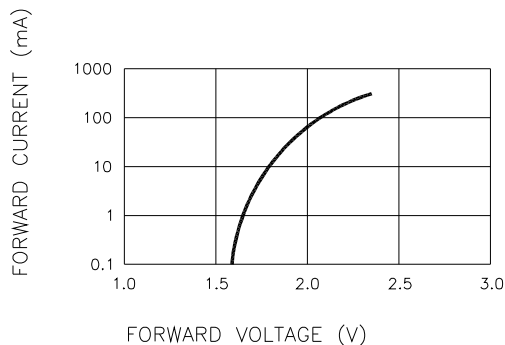


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

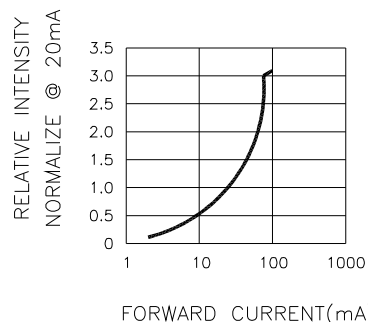


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

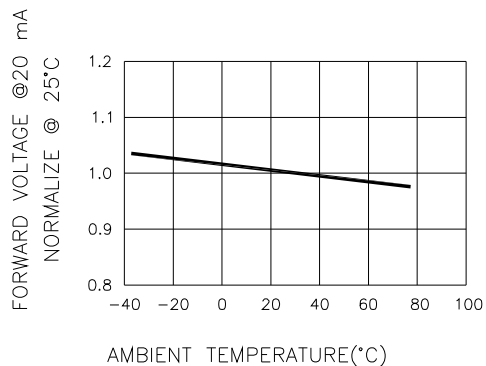


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

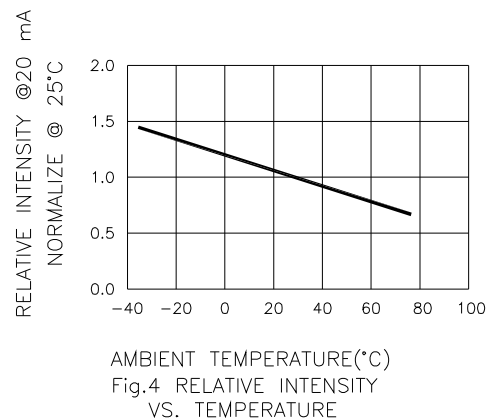


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

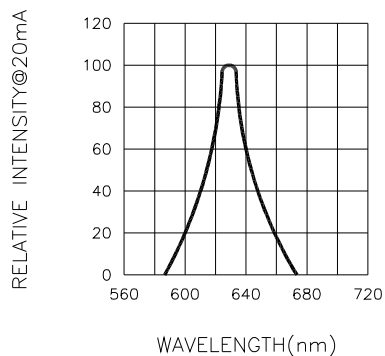


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

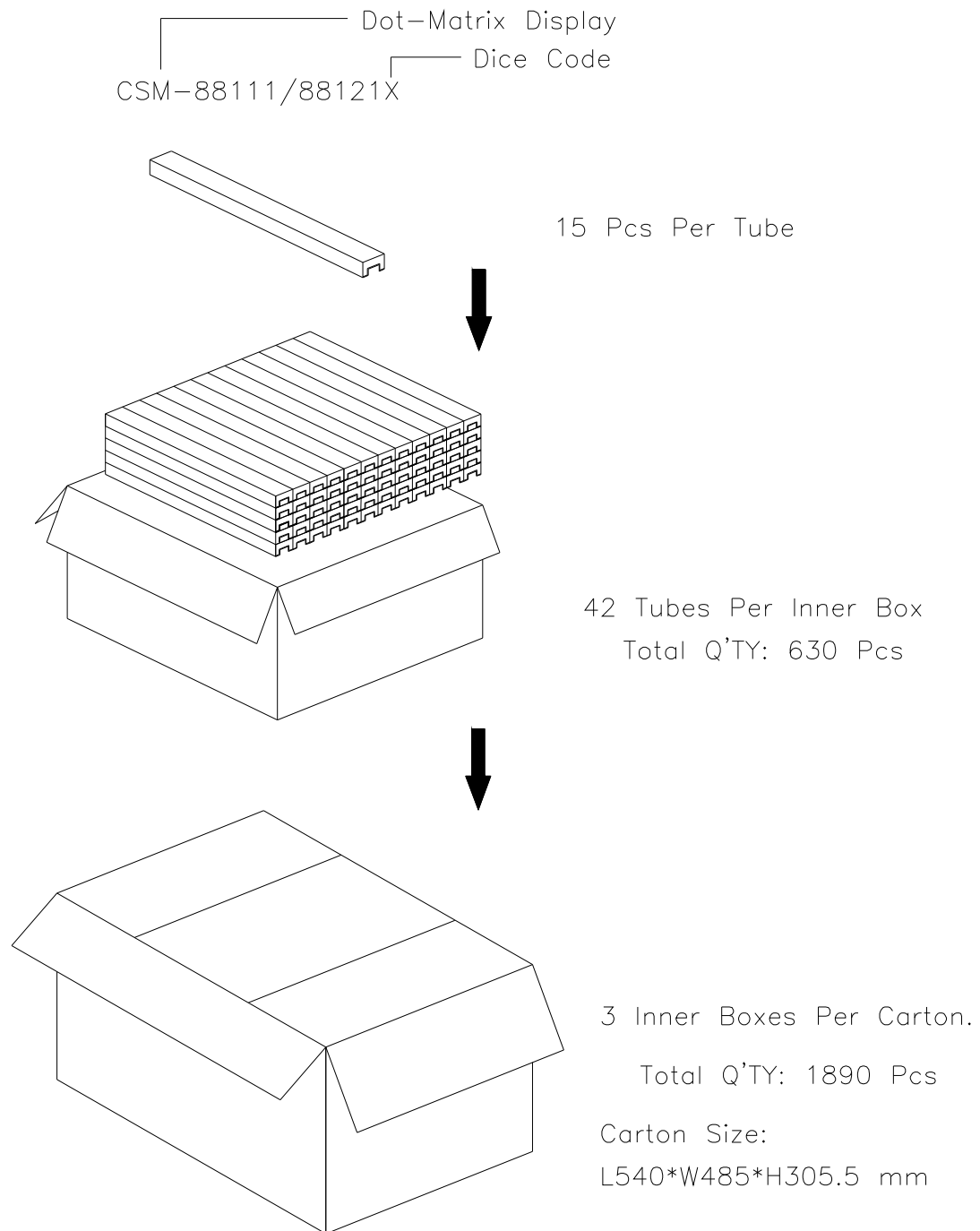


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■ Package Dimensions



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