



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

PRODUCT SPECIFICATION

Model No: CSM-88138V9/88148V9

Descriptions:
<ul style="list-style-type: none"> • 1.85 Inch 8X8 Dot-Matrix Display • Dot Pitch 6.0mm • CSM-88138: Column Anode, Row Cathode • CSM-88148: Column Cathode, Row Anode • Emitting Color: Super Bright Orange



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No : CSM-88138V9/88148V9

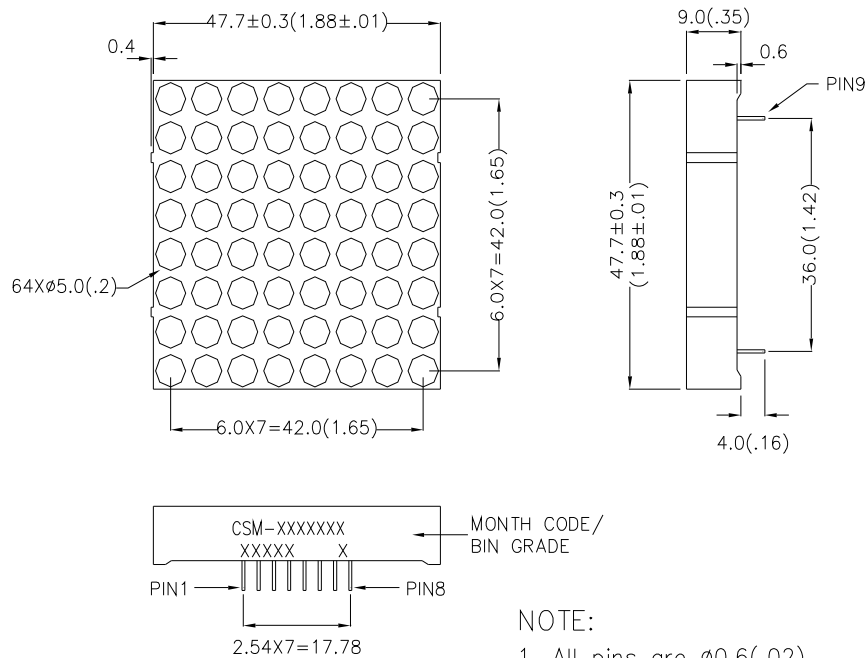
■ Features -

1. 1.85 inch (47.0mm) 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-88138V9	AlGaInP	Super Bright Orange	Anode	Cathode
CSM-88148V9	AlGaInP	Super Bright Orange	Cathode	Anode

■ Package Dimensions -



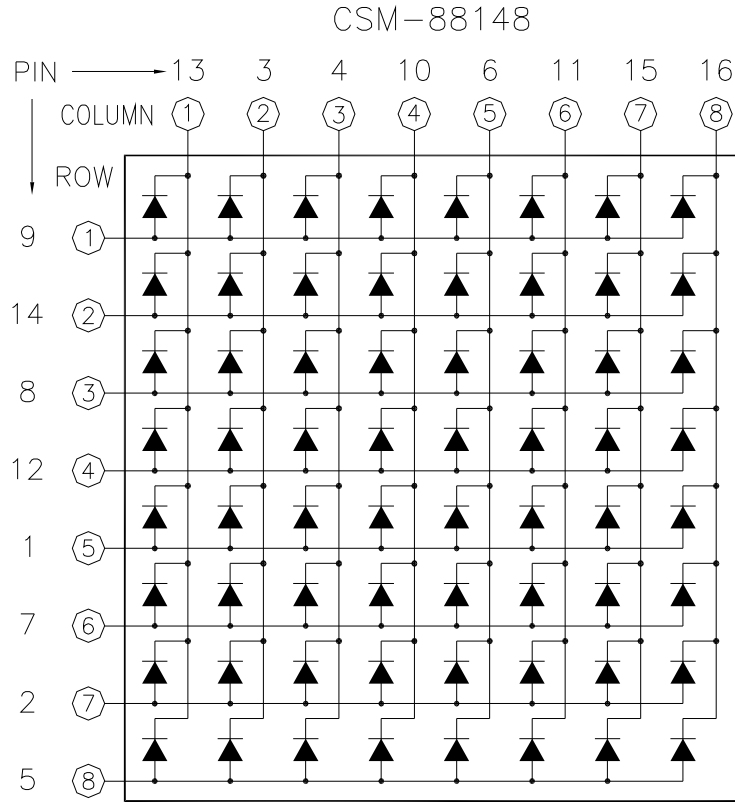
NOTE:

1. All pins are $\phi 0.6$ (.02).
2. Dimensions in millimeters (inch), tolerance is ± 0.25 (.01) unless otherwise noted.



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Internal Circuit Diagrams -



CSM-88138		CSM-88148	
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	Cathode Row 5	9	Cathode Row 1
2	Cathode Row 7	10	Anode Column 4
3	Anode Column 2	11	Anode Column 6
4	Anode Column 3	12	Cathode Row 4
5	Cathode Row 8	13	Anode Column 1
6	Anode Column 5	14	Cathode Row 2
7	Cathode Row 6	15	Anode Column 7
8	Cathode Row 3	16	Anode Column 8



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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	PAD	70	mW
Continuous Forward Current Per Dice	IAF	25	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	IPF	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	VR	5	V
Operating Temp.	Topr	-35 ~ +85	°C
Storage Temp.	Tstg	-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	VF	-	2.0	2.8	V	IF=20mA
Luminous Intensity Per Dot	Iv	-	40	-	mcd	IF=10mA
Peak Emission Wavelength	λ_p	-	632	-	nm	IF=20mA
Dominant Wavelength	λ_d	-	624	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	μA	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	Ip=80mA 1/16Duty



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■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

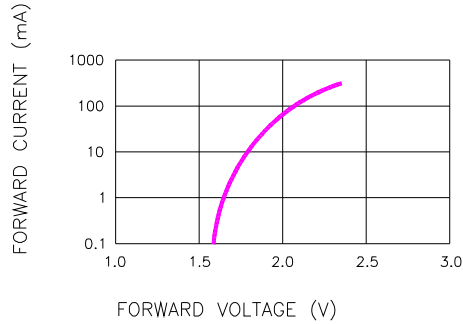


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

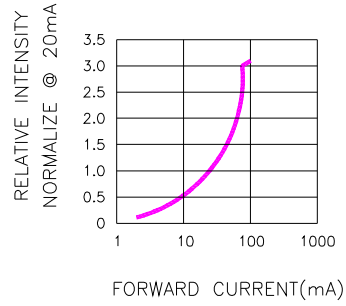


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

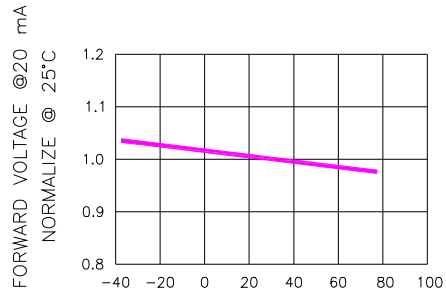


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

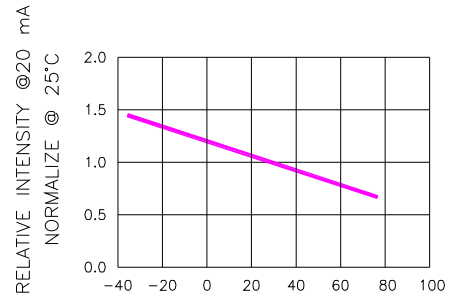


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

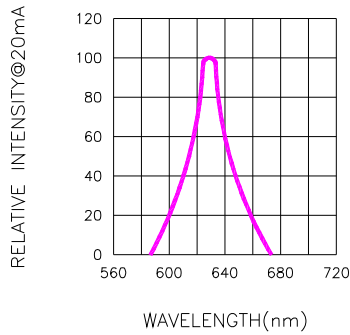


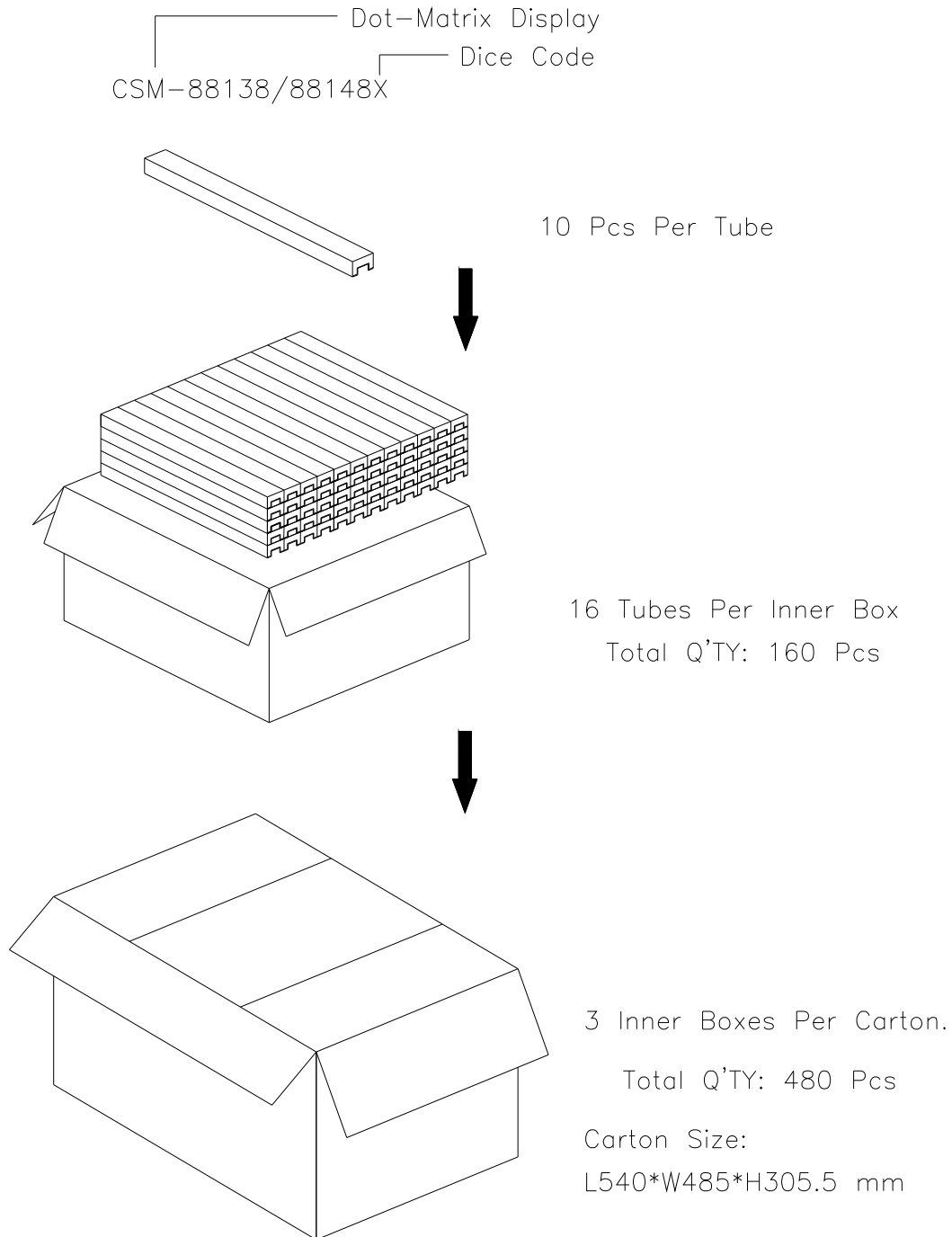
Fig.5 RELATIVE INTENSITY VS. WAVELENGTH



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■ Package Dimensions



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