



Spec. No.	PS-ND-08090301
Rev.	A

PRODUCT SPECIFICATION

Model No : CSM-88131S/88141S

Descriptions:
<ul style="list-style-type: none"> 1.5 Inch 8X8 Dot-Matrix Display Dot Pitch 5.0mm CSM-88131: Column Anode, Row Cathode CSM-88141: Column Cathode, Row Anode Emitting Color: Super Bright Red



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			

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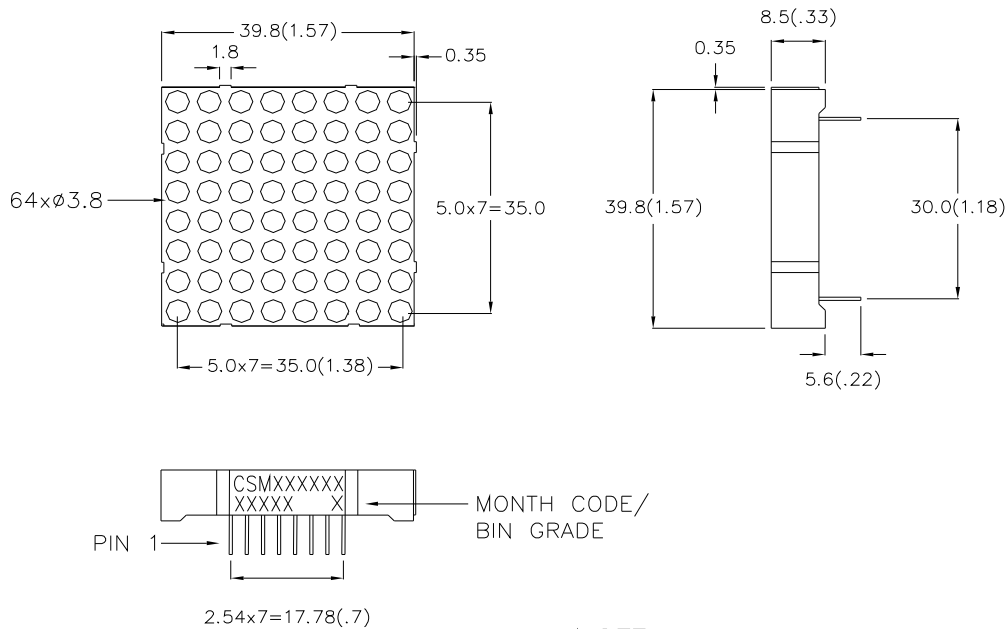
Features -

1. 1.5 inch (38.8mm) 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-88131S	AlGaAs	Super Bright Red	Anode	Cathode
CSM-88141S	AlGaAs	Super Bright Red	Cathode	Anode

Package Dimensions -



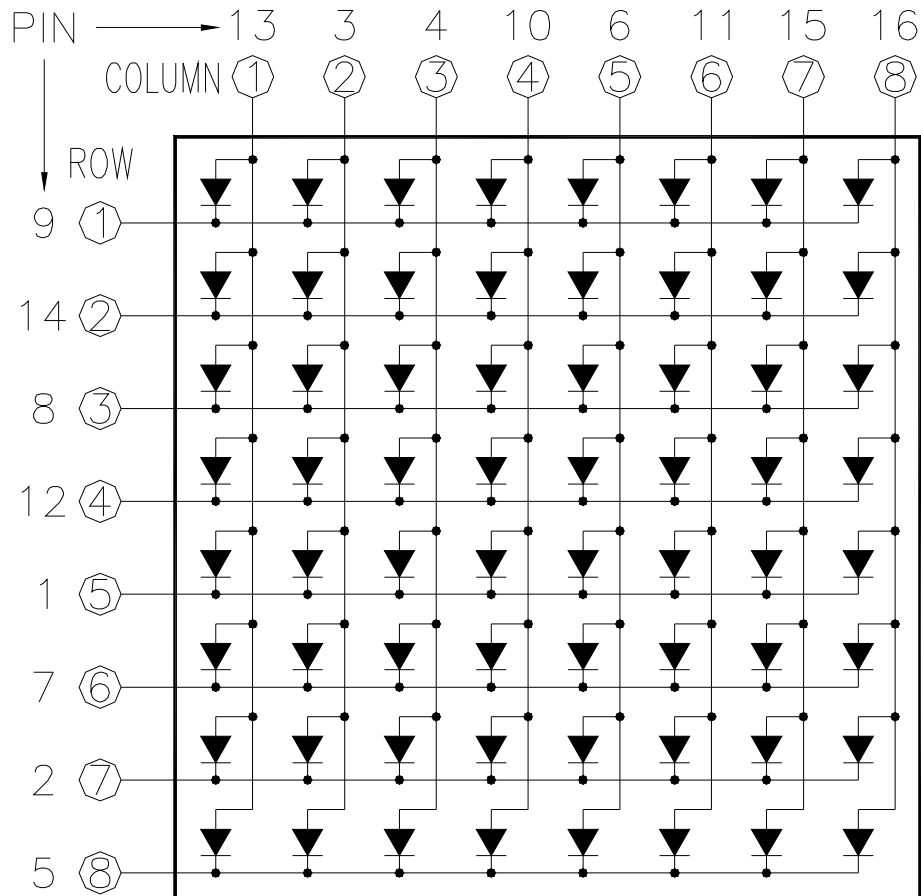
NOTE:

1. All pins are $\phi 0.5(.02)$.
2. Dimensions in millimeters (inch), tolerance is $\pm 0.25 (.01)$ unless otherwise noted.



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Internal Circuit Diagrams -



CSM-88131 Column Anode, Row Cathode
(CSM-88141 Column Cathode, Row Anode)



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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	PAD	75	mW
Continuous Forward Current Per Dice	IAF	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	IPF	120	mA
Derating Linear From 25°C Per Dice	-	0.42	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	-	1.8	2.5	V	IF=20mA
Luminous Intensity Per Dot	Iv	-	8	-	mcd	IF=10mA
Peak Emission Wavelength	λ_p	-	660	-	nm	IF=20mA
Dominant Wavelength	λ_d	-	644	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	μ A	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	I _p =80mA 1/16Duty



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Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

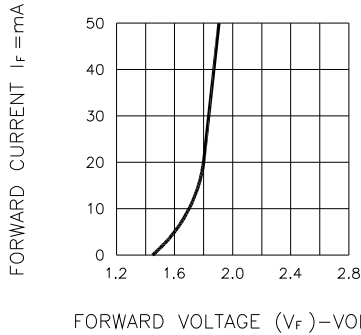


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

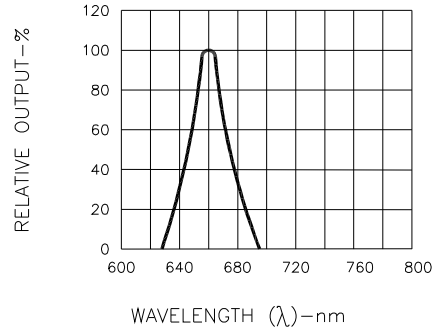


Fig.2 SPECTRAL RESPONSE

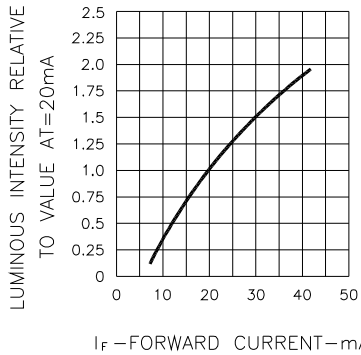


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

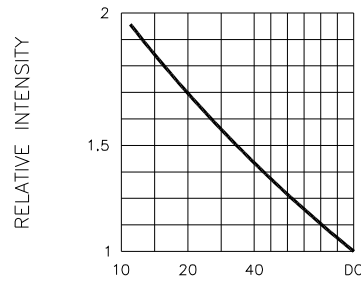


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE
(AVERAGE I_F = 10mA)

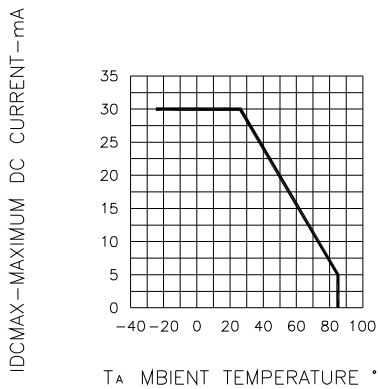


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

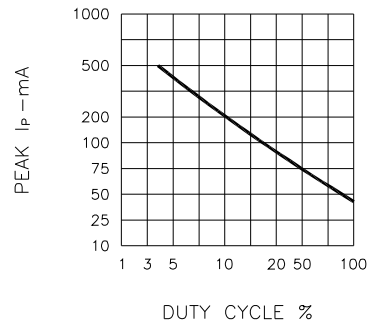


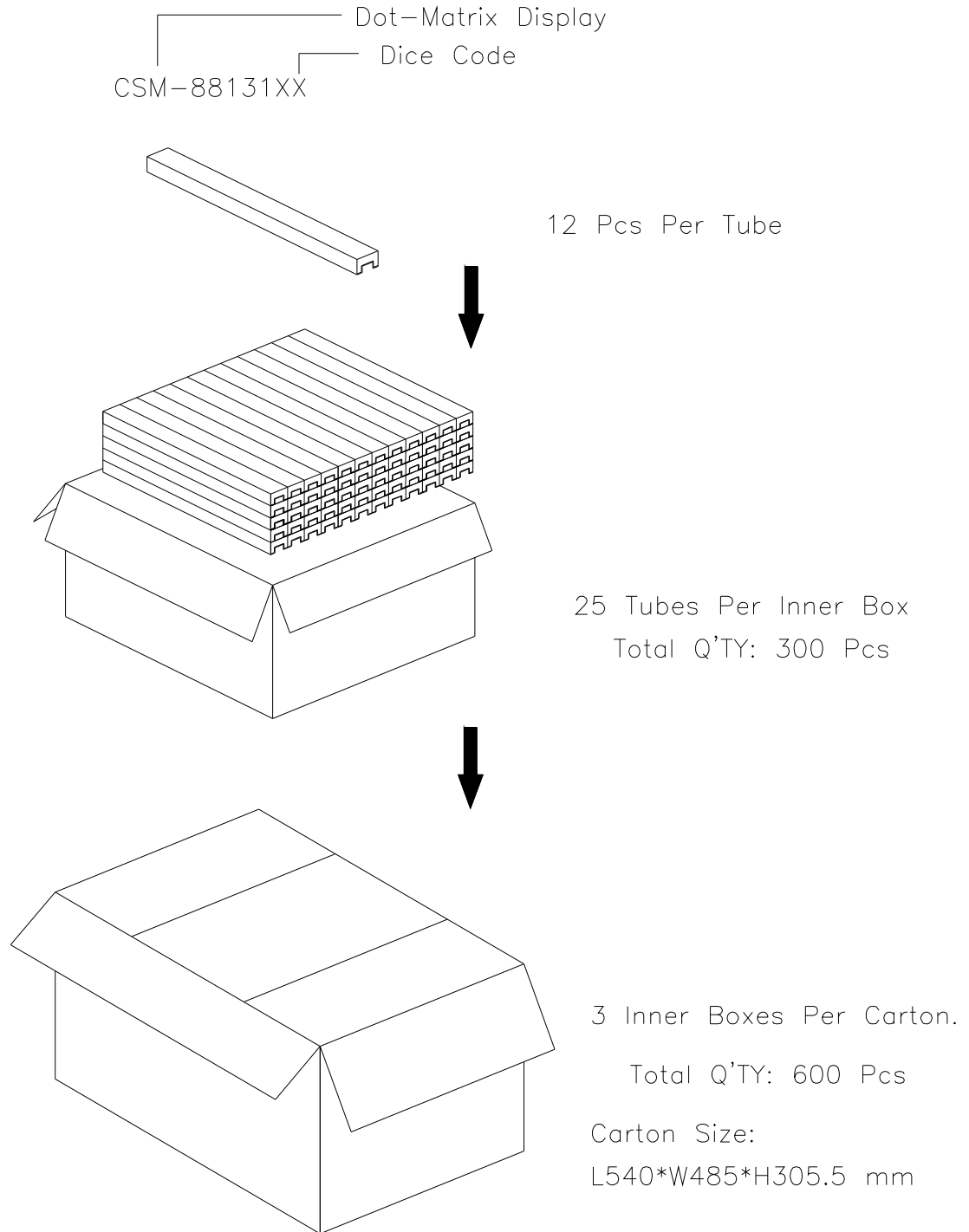
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE f = 1 KHz)



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■ Package Dimensions



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

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