CHINA
SEMICONDUCTOR
CORPORATION

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

PRODUCT SPECIFICATION

Model No：CSM-88131G/88141G

Descriptions:
• 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: Yellow Green

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

CHINA SEMICONDUCTOR CORPORATION
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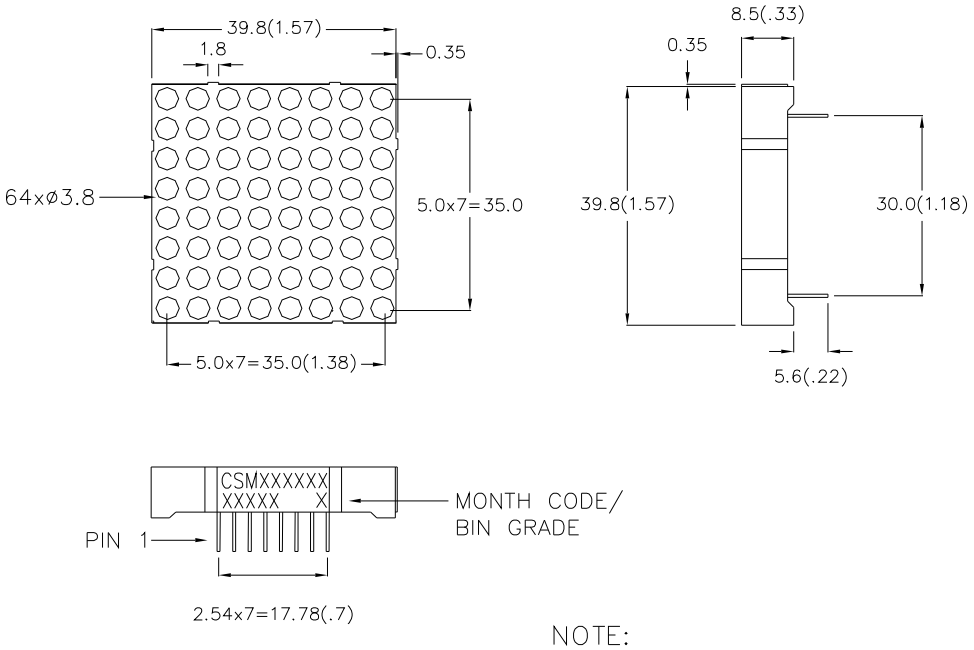
■ Features -

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-88131G	GaP	Yellow Green	Anode	Cathode
CSM-88141G	GaP	Yellow Green	Cathode	Anode

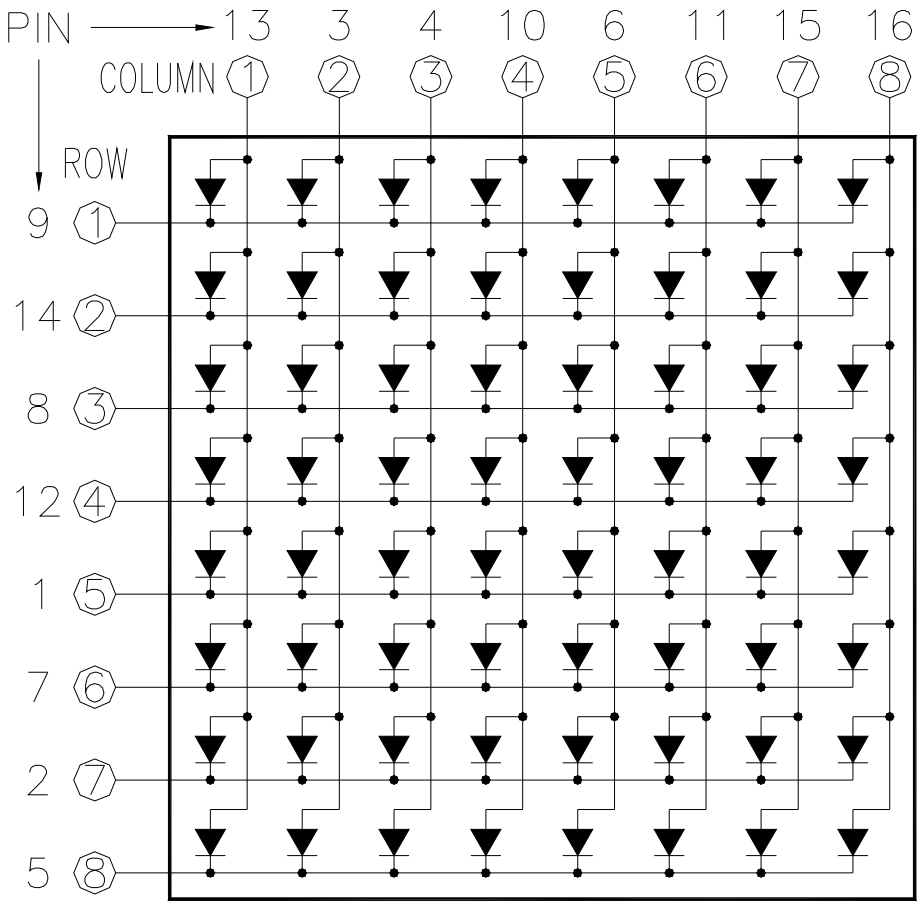
■ Package Dimensions -



NOTE:
1. All pins are ø0.5(.02).
2. Dimensions in millimeters (inch), tolerance is ±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℃)

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℃ 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 -

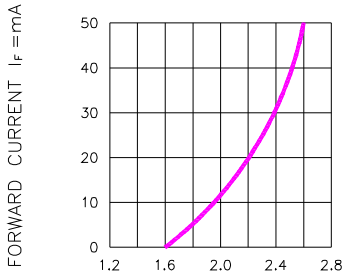
(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Dot	V_F	-	2.1	2.8	V	I_F=20mA
Luminous Intensity Per Dot	Iv	-	6	-	mcd	I_F=10mA
Peak Emission Wavelength	λp	-	568	-	nm	I_F=20mA
Dominant Wavelength	λd	-	572	-	nm	I_F=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	I_F=20mA
Reverse Current	IR	-	-	100	μA	V_R=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	Ip=80mA 1/16Duty

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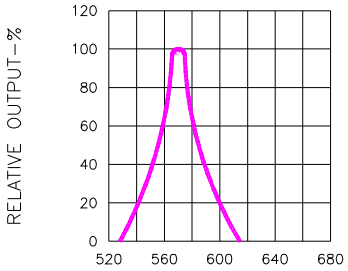
■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)



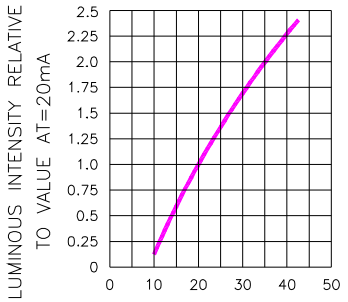
FORWARD VOLTAGE (V_F)–VOLTS

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



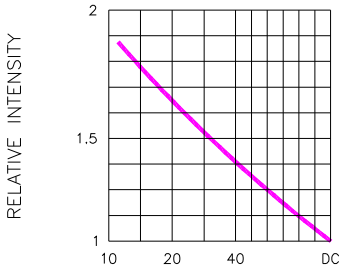
WAVELENGTH (λ)–nm

Fig.2 SPECTRAL RESPONSE



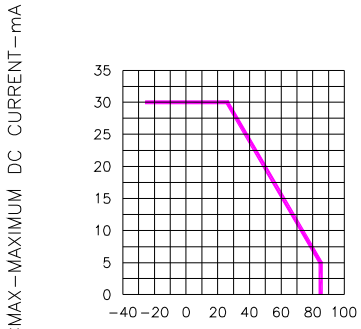
I_F –FORWARD CURRENT–mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



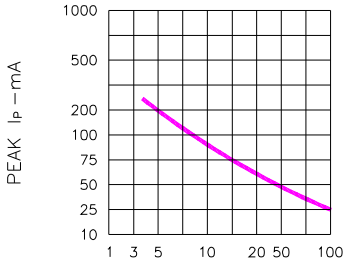
DUTY CYCLE % PER SEGMENT
(AVERAGE I_F=10mA)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



T_A AMBIENT TEMPERATURE °C

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

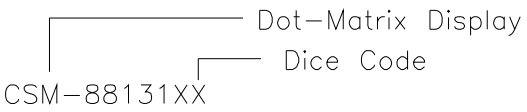


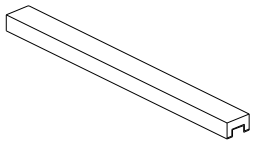
DUTY CYCLE %

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

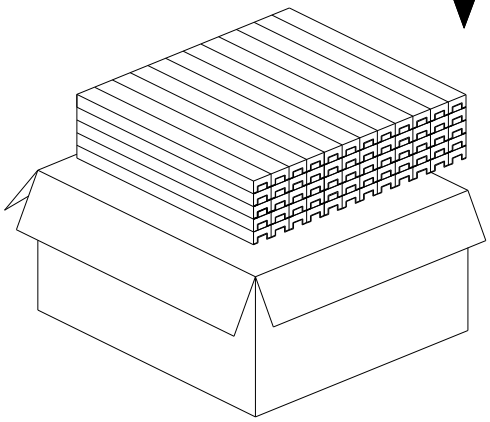
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■ Package Dimensions

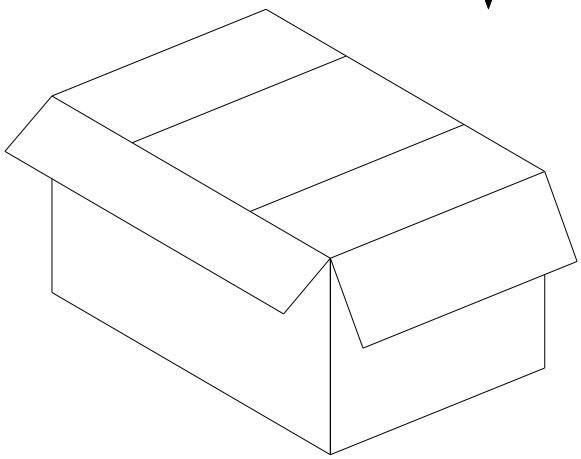




12 Pcs Per Tube



25 Tubes Per Inner Box
Total Q'TY: 300 Pcs



3 Inner Boxes Per Carton.

Total Q'TY: 600 Pcs

Carton Size:
L540*W485*H305.5 mm