



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

PRODUCT SPECIFICATION

Model No : CSM-88131E/88141E

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: Orange



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			

CHINA SEMICONDUCTOR CORPORATION
Address:2FL. NO.909,Chung-Cheng Road,
Chung-Ho City Taipei Hsien,Taiwan.

OPTO PLUS TECHNOLOGIES CO.,LTD
Address:696 Shun jiang Rd.,Ji Shan St.Shaoxing,
ZheJiang,China

Tel:886-2-2223-9696
Fax:886-2-2223-9377

Tel:86-0575-88623888
Fax:86-0575-88623112



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

Model No : CSM-88131E/88141E

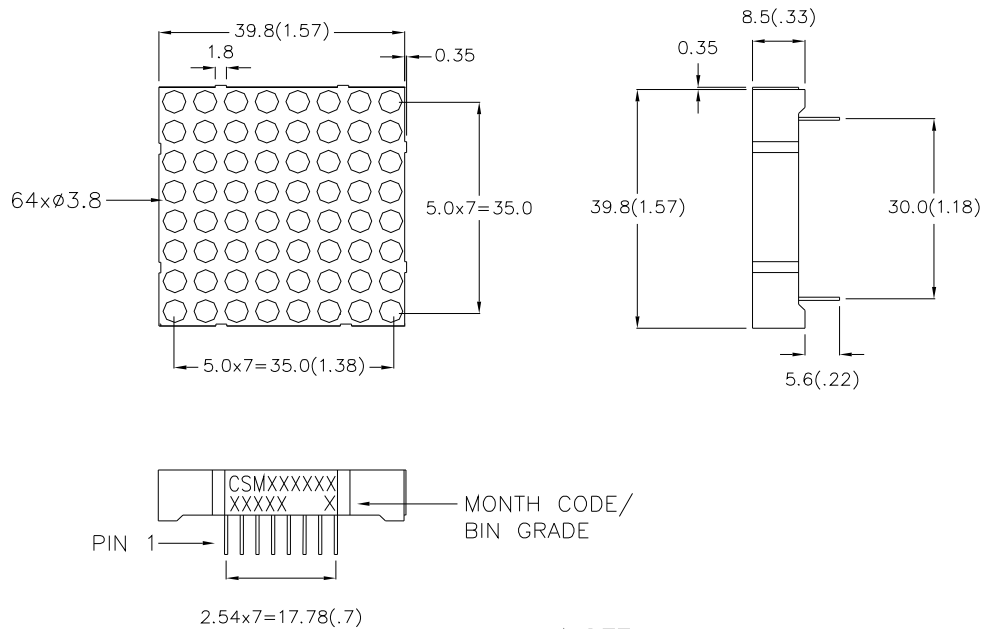
■ Features -

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-88131E	GaAsP	Orange	Anode	Cathode
CSM-88141E	GaAsP	Orange	Cathode	Anode

■ Package Dimensions -



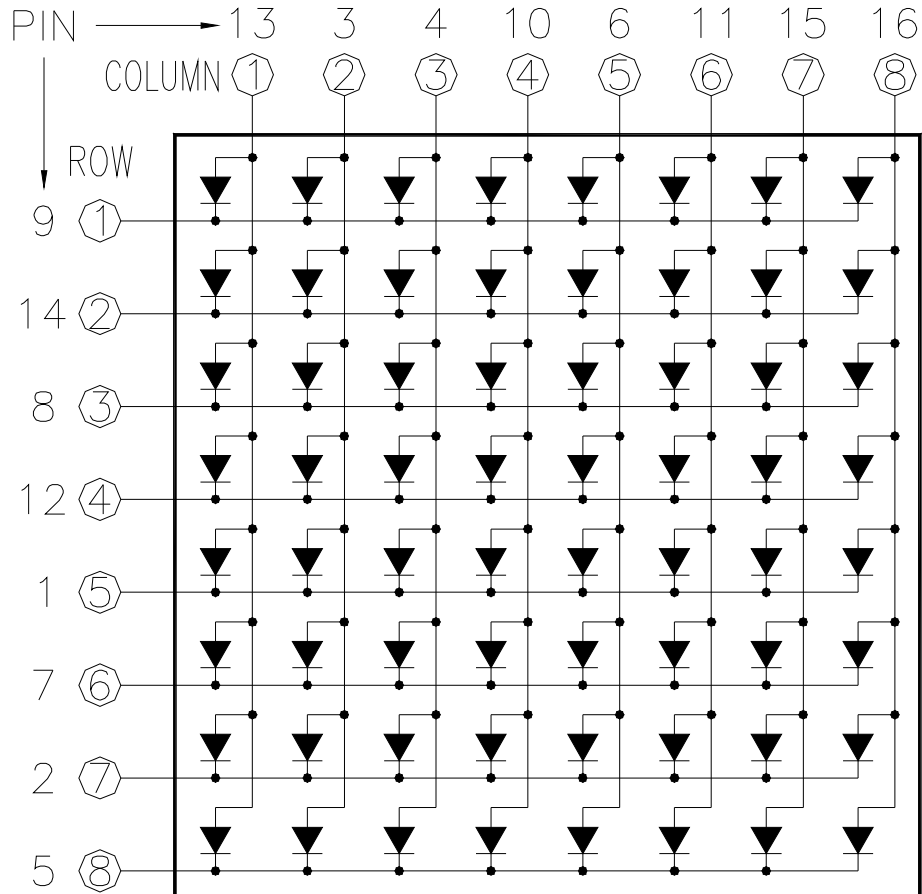
NOTE:

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



Model No : CSM-88131E/88141E

Internal Circuit Diagrams -



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



Model No : CSM-88131E/88141E

■ 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	-	5	-	mcd	IF=10mA
Peak Emission Wavelength	λ_p	-	632	-	nm	IF=20mA
Dominant Wavelength	λ_d	-	624	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	35	-	nm	IF=20mA
Reverse Current	IR	-	-	100	μA	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	Ip=80mA 1/16Duty

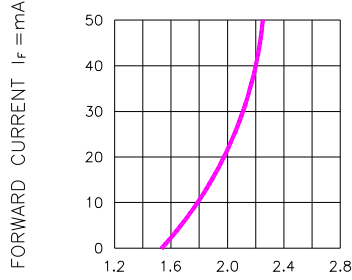


Spec. No.	PS-ND-08090301
Rev.	A

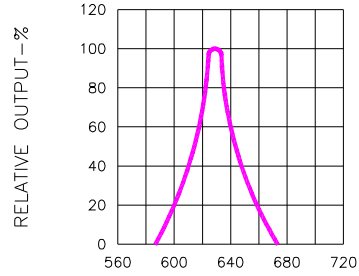
Model No : CSM-88131E/88141E

Typical Electrical / Optical Characteristics Curves -

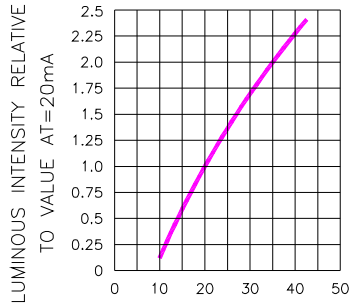
(Ta = 25°C Unless Otherwise Noted)



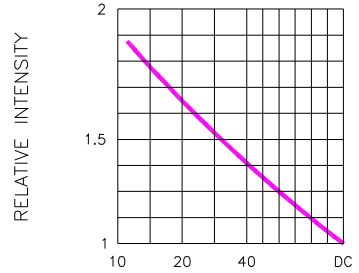
FORWARD VOLTAGE (V_f)—VOLTS
Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



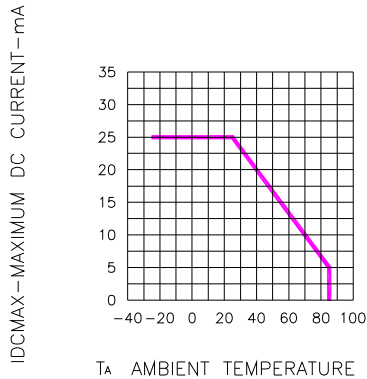
WAVELENGTH (λ)—nm
Fig.2 SPECTRAL RESPONSE



I_f —FORWARD CURRENT—mA
Fig.3 RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT



DUTY CYCLE % PER SEGMENT
(AVERAGE $I_f = 10\text{mA}$)
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

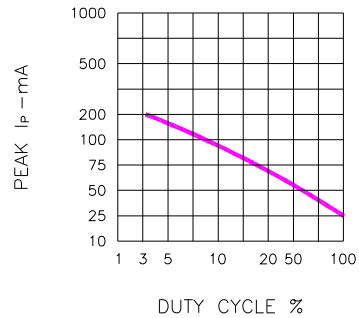


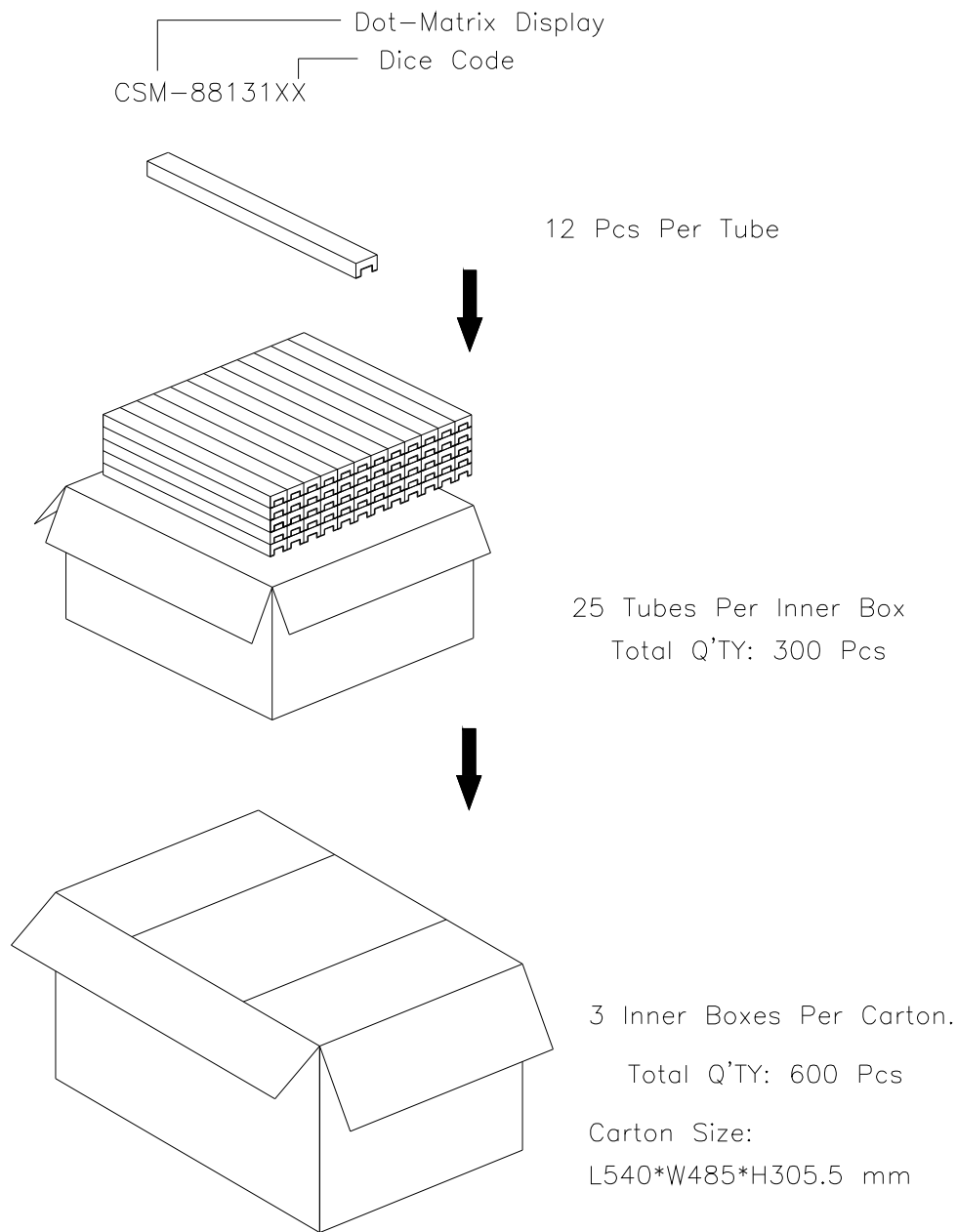
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE $f = 1\text{ KHz}$)



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

Model No: CSM-88131E/88141E

■ Package Dimensions



Note: The specifications are subject to change without notice. Please contact us for updated information.
<http://www.csctw.com.tw>