



Spec. No.	PS-ND-08090311
Rev.	A

# PRODUCT SPECIFICATION

**Model No : CSM-58432E/58442E**

Descriptions:
<ul style="list-style-type: none"> <li>• 4.6 Inch 5X8 Dot-Matrix Display</li> <li>• Dot Pitch 15.25mm</li> <li>• CSM-58432: Column Anode, Row Cathode</li> <li>• CSM-58442: Column Cathode, Row Anode</li> <li>• Emitting Color: Orange</li> </ul>



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:86-0575-8623888  
Fax:86-0575-8623112



**Model No : CSM-58432/58442E**

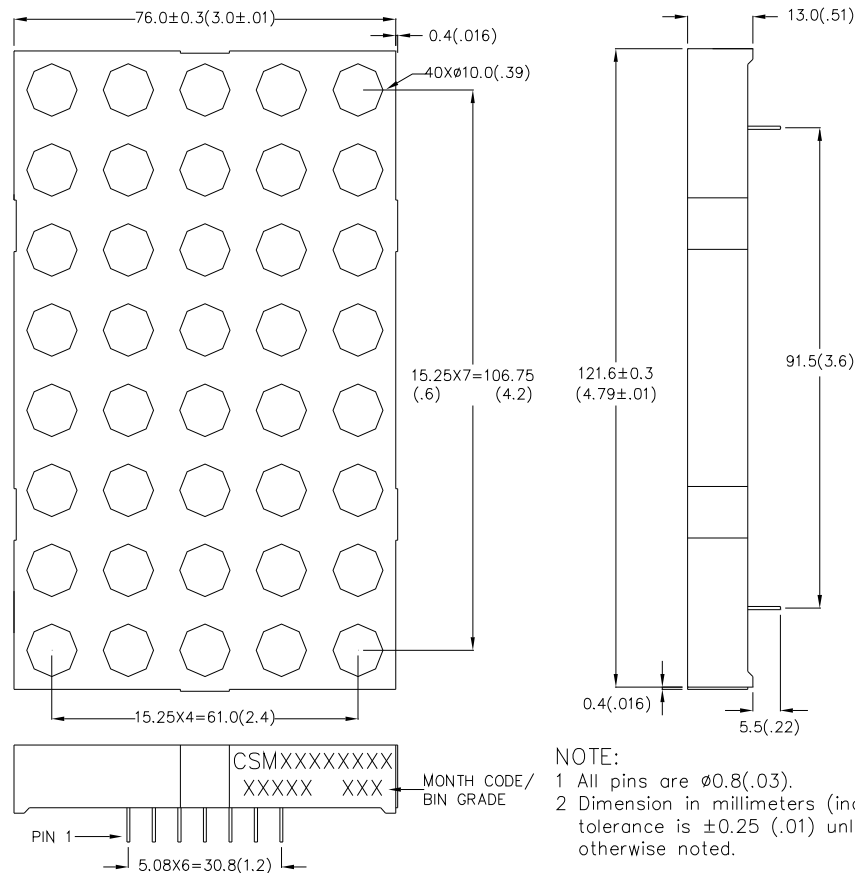
**Features -**

1. 4.6 inch (116.68mm) 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		
<b>CSM-58432E</b>	<b>GaAsP</b>	<b>Orange</b>	<b>Anode</b>	<b>Cathode</b>
<b>CSM-58442E</b>	<b>GaAsP</b>	<b>Orange</b>	<b>Cathode</b>	<b>Anode</b>

**Package Dimensions -**

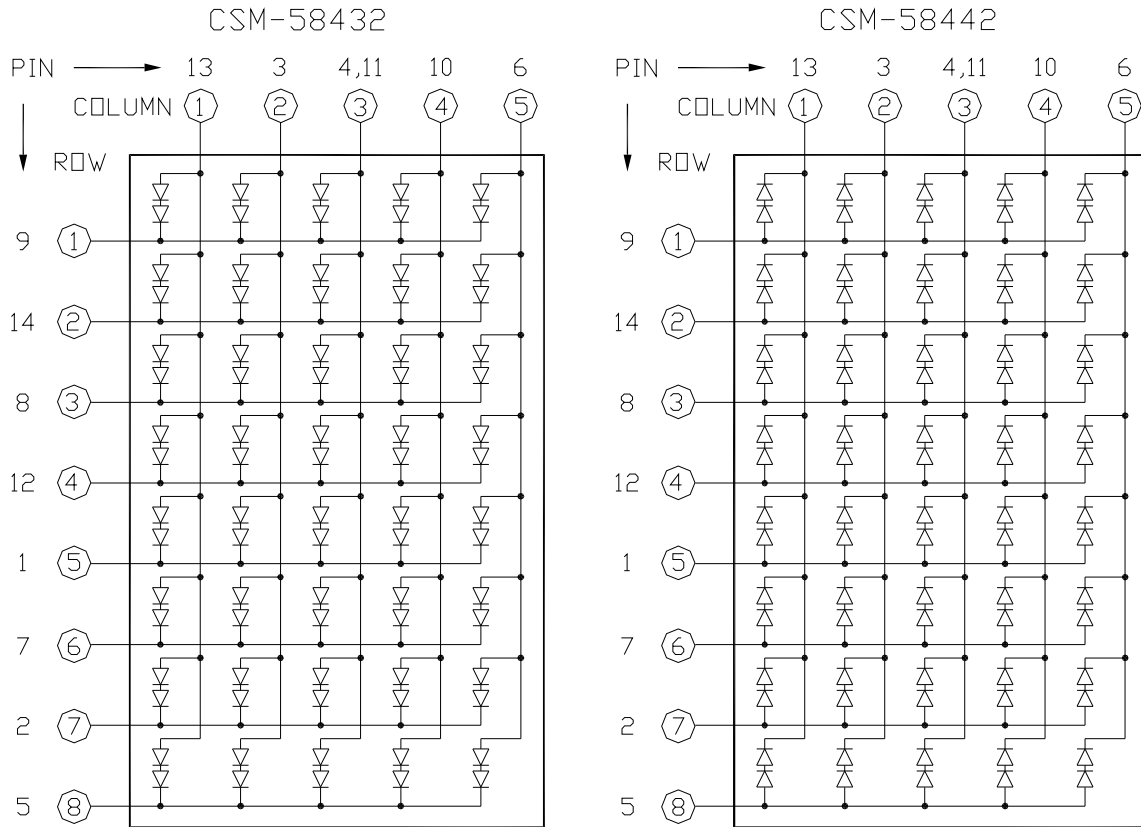


**NOTE:**  
 1 All pins are  $\phi 0.8$  (.03).  
 2 Dimension in millimeters (inch), tolerance is  $\pm 0.25$  (.01) unless otherwise noted.



**Model No : CSM-58432/58442E**

**Internal Circuit Diagrams -**



CSM-58432			
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	Cathode Row 5	8	Cathode Row 3
2	Cathode Row 7	9	Cathode Row 1
3	Anode Column 2	10	Anode Column 4
4	Anode Column 3	11	Anode Column 3
5	Cathode Row 8	12	Cathode Row 4
6	Anode Column 5	13	Anode Column 1
7	Cathode Row 6	14	Cathode Row 2

CSM-58442			
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	Anode Row 5	8	Anode Row 3
2	Anode Row 7	9	Anode Row 1
3	Cathode Column 2	10	Cathode Column 4
4	Cathode Column 3	11	Cathode Column 3
5	Anode Row 8	12	Anode Row 4
6	Cathode Column 5	13	Cathode Column 1
7	Anode Row 6	14	Anode Row 2



Model No : CSM-58432/58442E

■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	<b>Pd</b>	70	mW
Continuous Forward Current Per Dice	<b>IAF</b>	25	mA
Peak Current Per Dice(duty cycle 1/10, 1kHz)	<b>IPF</b>	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	<b>VR</b>	5	V
Operating Temp.	<b>Topr</b>	-35 ~ +85	°C
Storage Temp.	<b>Tstg</b>	-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	<b>VF</b>	-	4.0	5.6	V	IF=20mA
Luminous Intensity Per Dot	<b>Iv</b>	-	12	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$	-	632	-	nm	IF=20mA
Dominant Wavelength	$\lambda_d$	-	624	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	35	-	nm	IF=20mA
Reverse Current	<b>IR</b>	-	-	100	$\mu A$	VR=5V
Luminous Intensity Matching Ratio	<b>IV-m</b>	-	-	2:1	-	IF=10mA



Spec. No.	PS-ND-08090311
Rev.	A

Model No : CSM-58432/58442E

Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

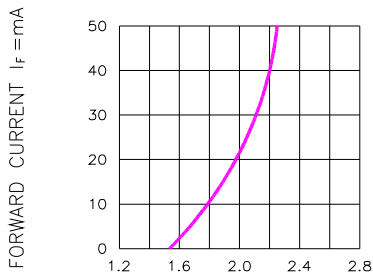


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

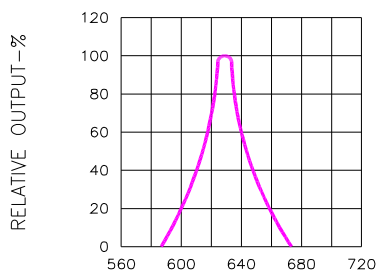


Fig.2 SPECTRAL RESPONSE

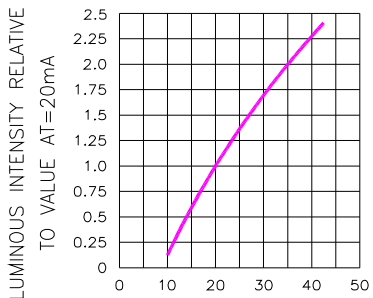


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

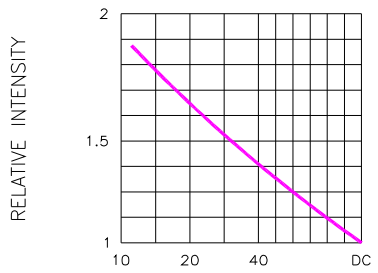


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

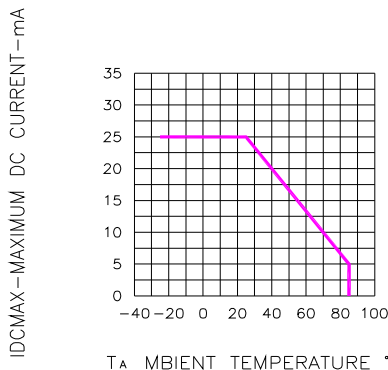


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

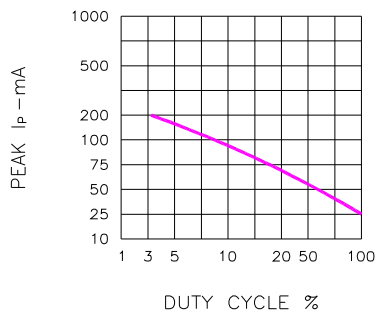


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f = 1 KHz)