



# PRODUCT SPECIFICATION

**Model No : CSM-58462VM9**

## Descriptions:

- 4.6 Inch 5X8 Dot-Matrix Display
- Dot Pitch 15.25mm
- CSM-58462: Column Cathode, Row Anode
- Emitting Color: Super Bright Orange & Super Bright Green



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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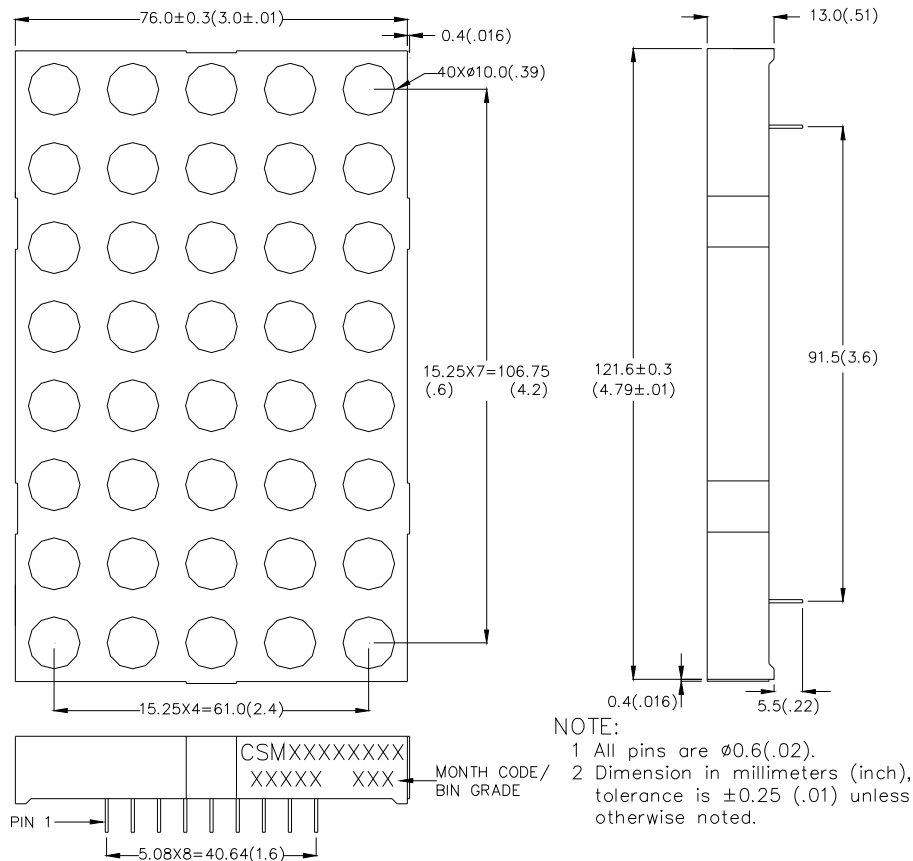
**■ Features -**

1. 4.6 inch (116.75mm) 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		Description	
	Material	Emitted Color	Column	Row
CSM-58462VM9	AlGaInP	Super Bright Orange	Cathode	Anode
	AlGaInP	Super Bright Green		

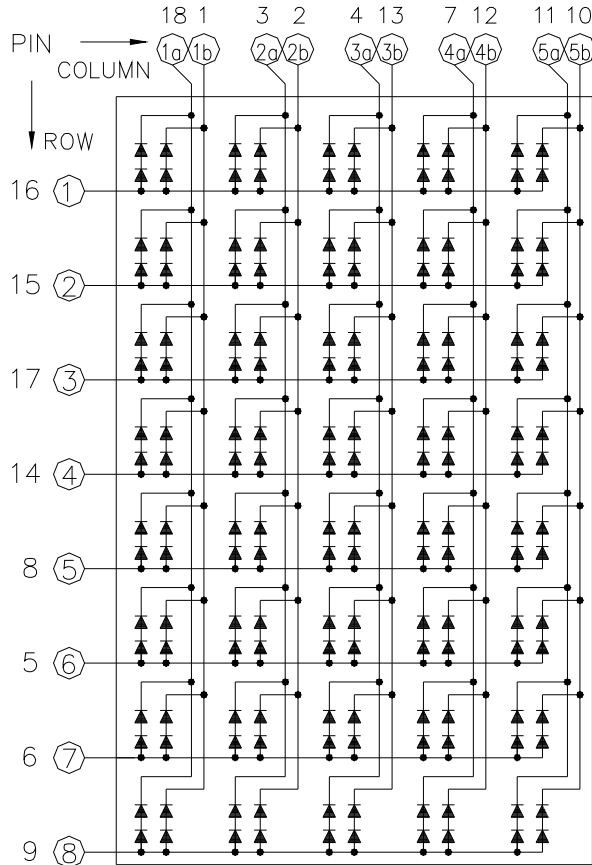
**■ Package Dimensions -**





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Internal Circuit Diagrams -



NOTE: "a" for Super Bright Orange color chip  
"b" for Super Bright Green color chip.

Absolute Maximum Rating -

Super Bright Orange		(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			



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Super Bright Green		(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
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Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			

■ Electro-optical Characteristics -

Super Bright Orange		(Ta=25°C)				
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Dot	VF	-	4.0	5.6	V	IF=20mA
Luminous Intensity Per Dot	Iv	-	75	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$	-	632	-	nm	IF=20mA
Dominant Wavelength	$\lambda_d$	-	624	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	$\mu A$	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA

Super Bright Green		(Ta=25°C)				
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Dot	VF	-	4.2	5.6	V	IF=20mA
Luminous Intensity Per Dot	Iv	-	35	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$	-	572	-	nm	IF=20mA
Dominant Wavelength	$\lambda_d$	-	570	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	IR	-	-	100	$\mu A$	VR=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	IF=10mA



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■ Typical Electrical / Optical Characteristics Curves -Super Bright Orange

(Ta = 25°C Unless Otherwise Noted)

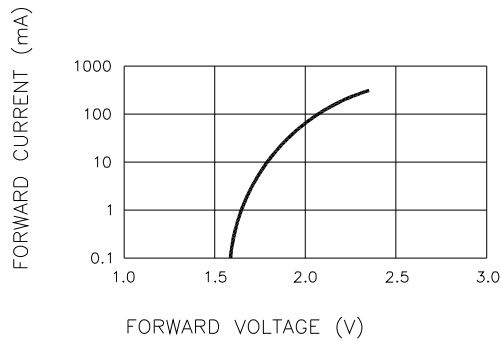


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

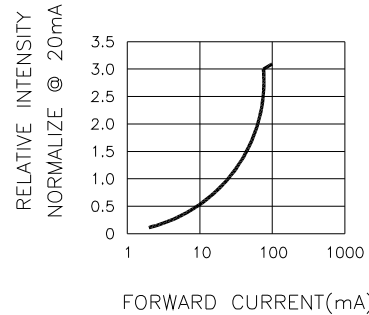


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

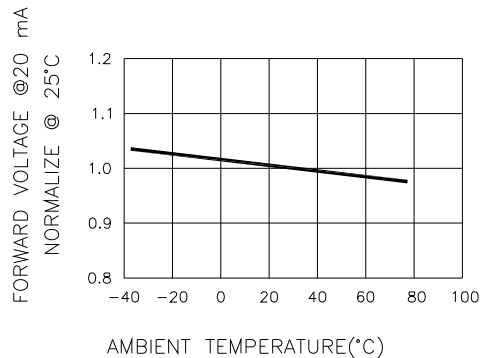


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

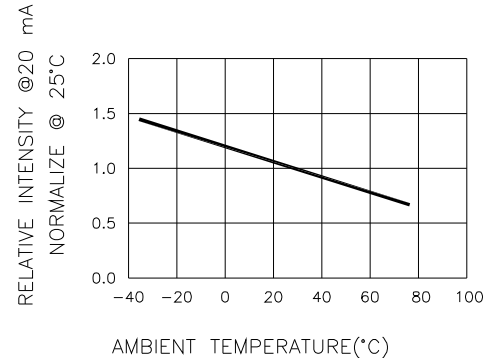


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

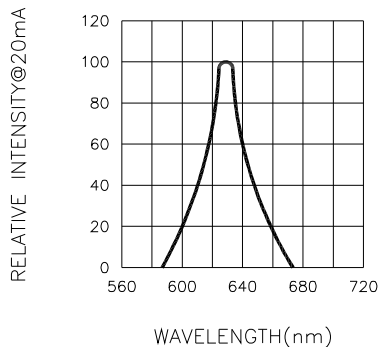


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH



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### ■ Super Bright Green

(Ta = 25°C Unless Otherwise Noted)

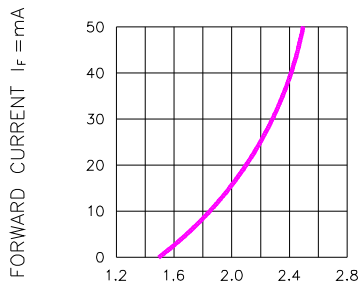


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

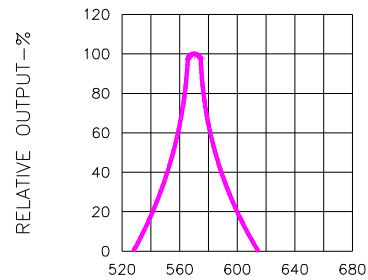


Fig.2 SPECTRAL RESPONSE

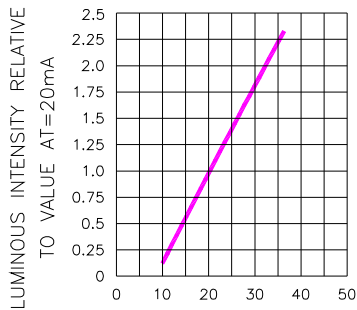


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

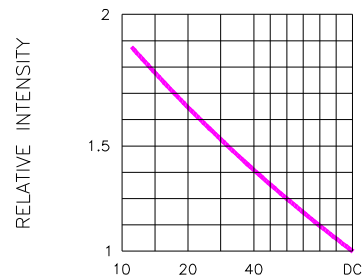


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

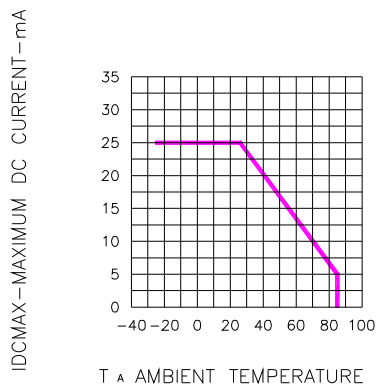


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

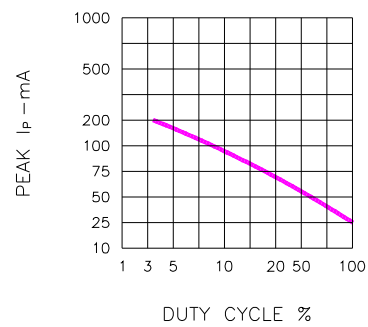


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

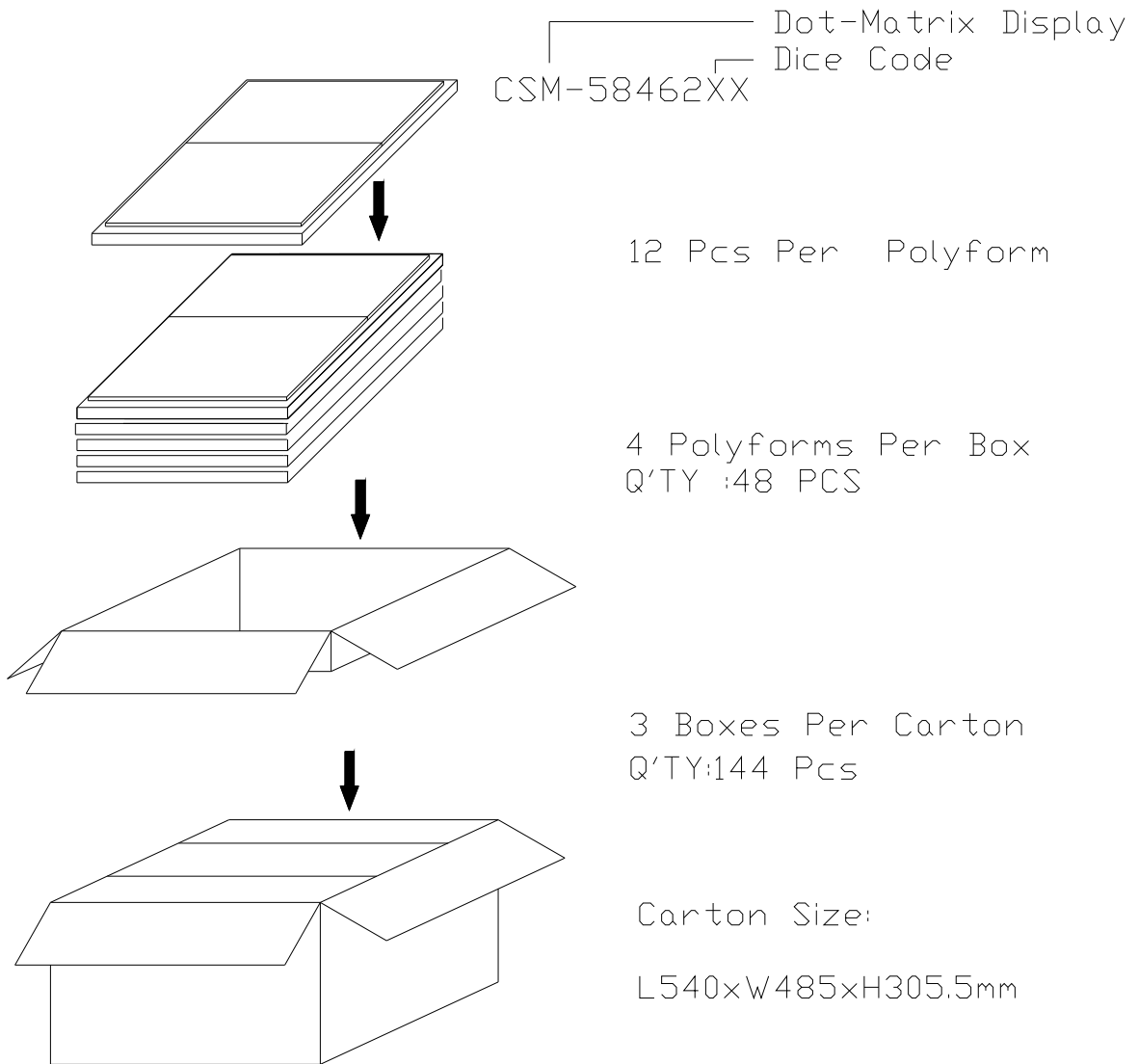


**CHINA  
SEMICONDUCTOR  
CORPORATION**

Spec. No.	PS-ND-08090403
Rev.	A

**Model No: CSM-558462VM9**

■ Package Dimensions



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

