



PRODUCT SPECIFICATION

Model No : CSM-57362VM9

Descriptions:
<ul style="list-style-type: none"> • 3.0Inch Dot-Matrix Display • Dot Pitch 11.43mm • 5*7 Array with X-Y Select. • CSM-57362: 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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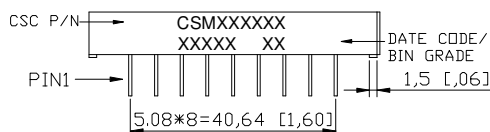
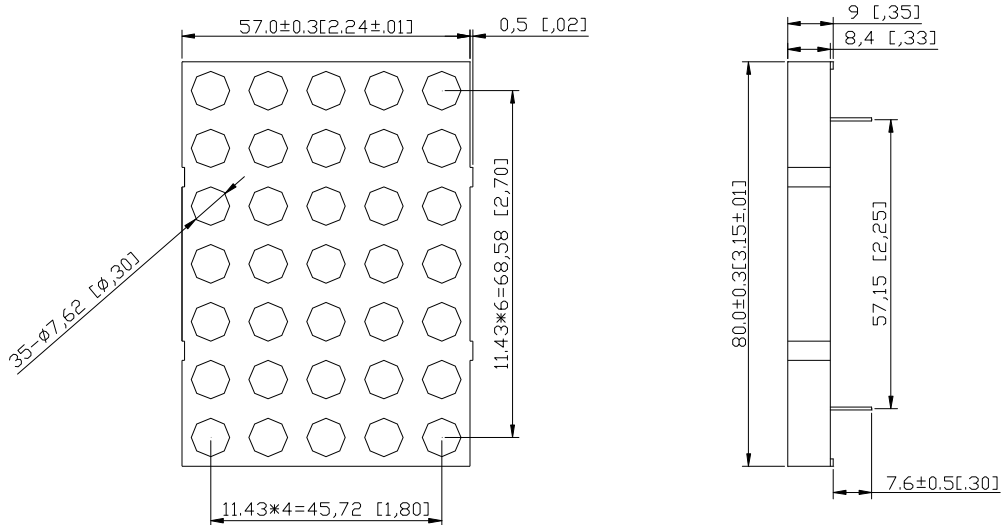
Features -

1. 3.0 inch (76.2mm) 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-57362VM9	AlGaInP	Super-Bright Orange	Cathode	Anode
	AlGaInP	Super-Bright Green		

Package Dimensions -



NOTE:

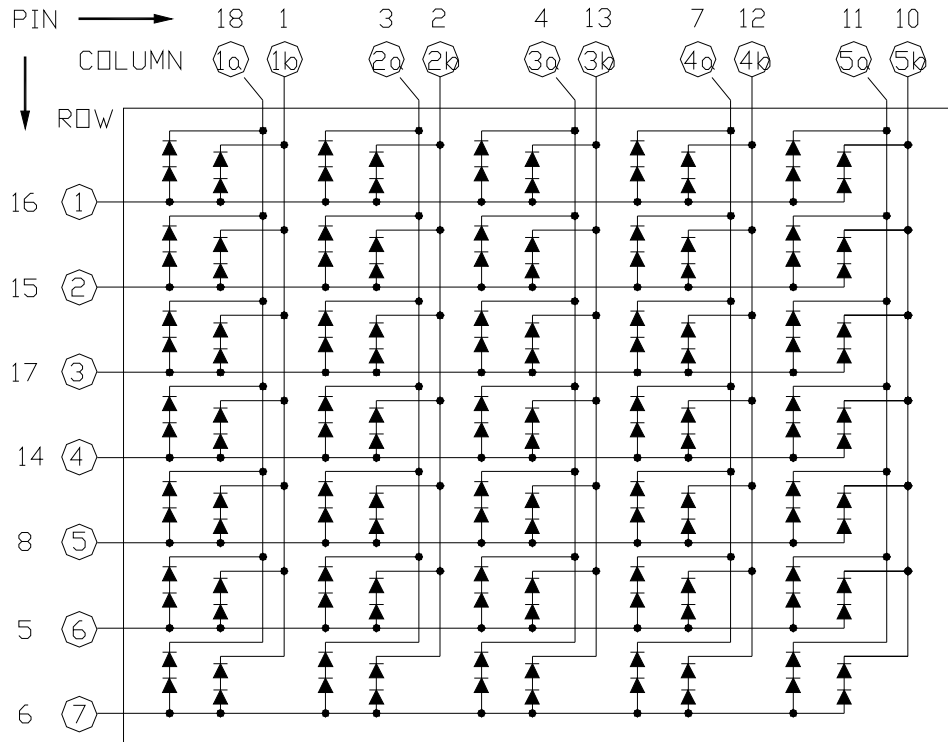
- 1 All pins are $\phi 0.6$ (.02).
- 2 All dimensions are in millimeters (inch), tolerance is ± 0.25 (.01) unless otherwise noted.



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Internal Circuit Diagrams -

CSM-57362



CSM-57362			
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	Cathode Column 1b	10	Cathode Column 5b
2	Cathode Column 2b	11	Cathode Column 5a
3	Cathode Column 2a	12	Cathode Column 4b
4	Cathode Column 3a	13	Cathode Column 3b
5	Anode Row 6	14	Anode Row 4
6	Anode Row 7	15	Anode Row 2
7	Cathode Column 4a	16	Anode Row 1
8	Anode Row 5	17	Anode Row 3
9	No Connect	18	Cathode Column 1a

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



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■ 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			

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
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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■ Electro-optical Characteristics -

Super Bright Orange							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage Per Dot	V _F	-	4.0(2.0)	5.6(2.8)	V	I _F =20mA	
Luminous Intensity Per Dot	I _v	-	60	-	mcd	I _F =10mA	
Peak Emission Wavelength	λ _p	-	632	-	nm	I _F =20mA	
Dominant Wavelength	λ _d	-	624	-	nm	I _F =20mA	
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	I _F =20mA	
Reverse Current	I _R	-	-	100	μA	V _R =10V	
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	I _p =80mA 1/16Duty	

Super Bright Green							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage Per Dot	V _F	-	4.2(2.1)	5.6(2.8)	V	I _F =20mA	
Luminous Intensity Per Dot	I _v	-	30	-	mcd	I _F =10mA	
Peak Emission Wavelength	λ _p	-	572	-	nm	I _F =20mA	
Dominant Wavelength	λ _d	-	570	-	nm	I _F =20mA	
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	I _F =20mA	
Reverse Current	I _R	-	-	100	μA	V _R =10V	
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	I _p =80mA 1/16Duty	



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■ Typical Electrical / Optical Characteristics Curves -Super-Bright Orange
(Ta = 25°C Unless Otherwise Noted)

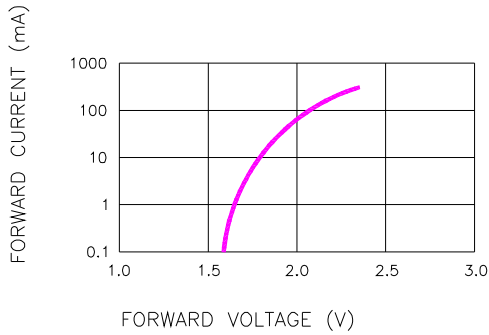


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

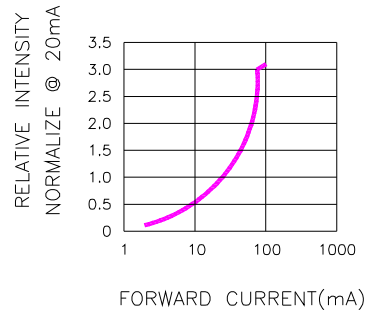


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

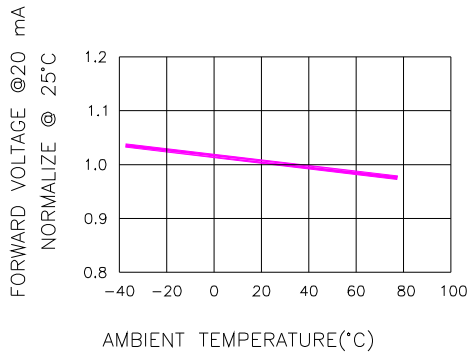


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

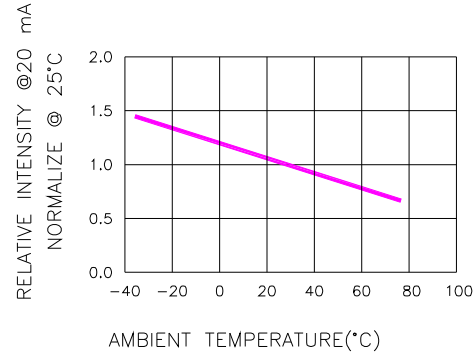


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

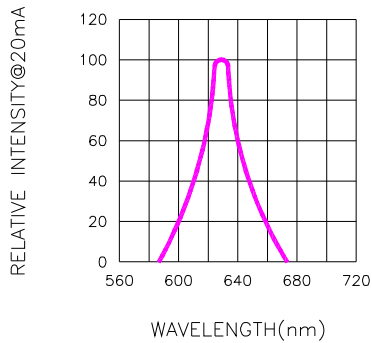
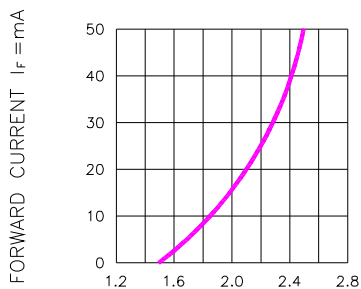


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

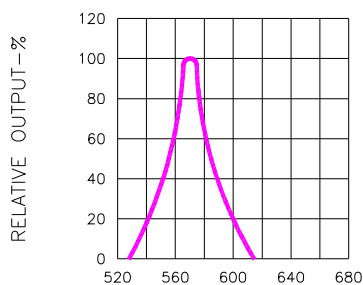


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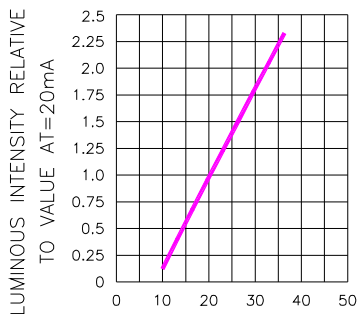
**Super Bright Green
(Ta = 25°C Unless Otherwise Noted)**



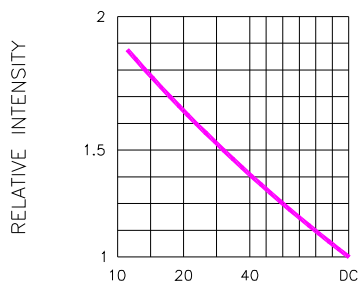
FORWARD VOLTAGE (V_F)—VOLTS
Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



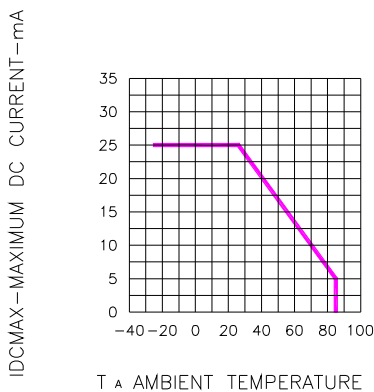
WAVELENGTH (λ)—nm
Fig.2 SPECTRAL RESPONSE



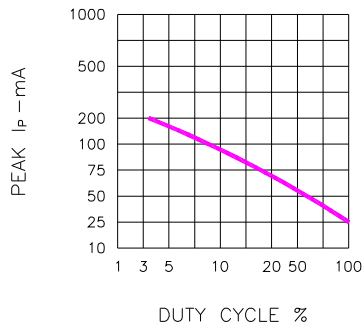
I_F—FORWARD CURRENT—mA
Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



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



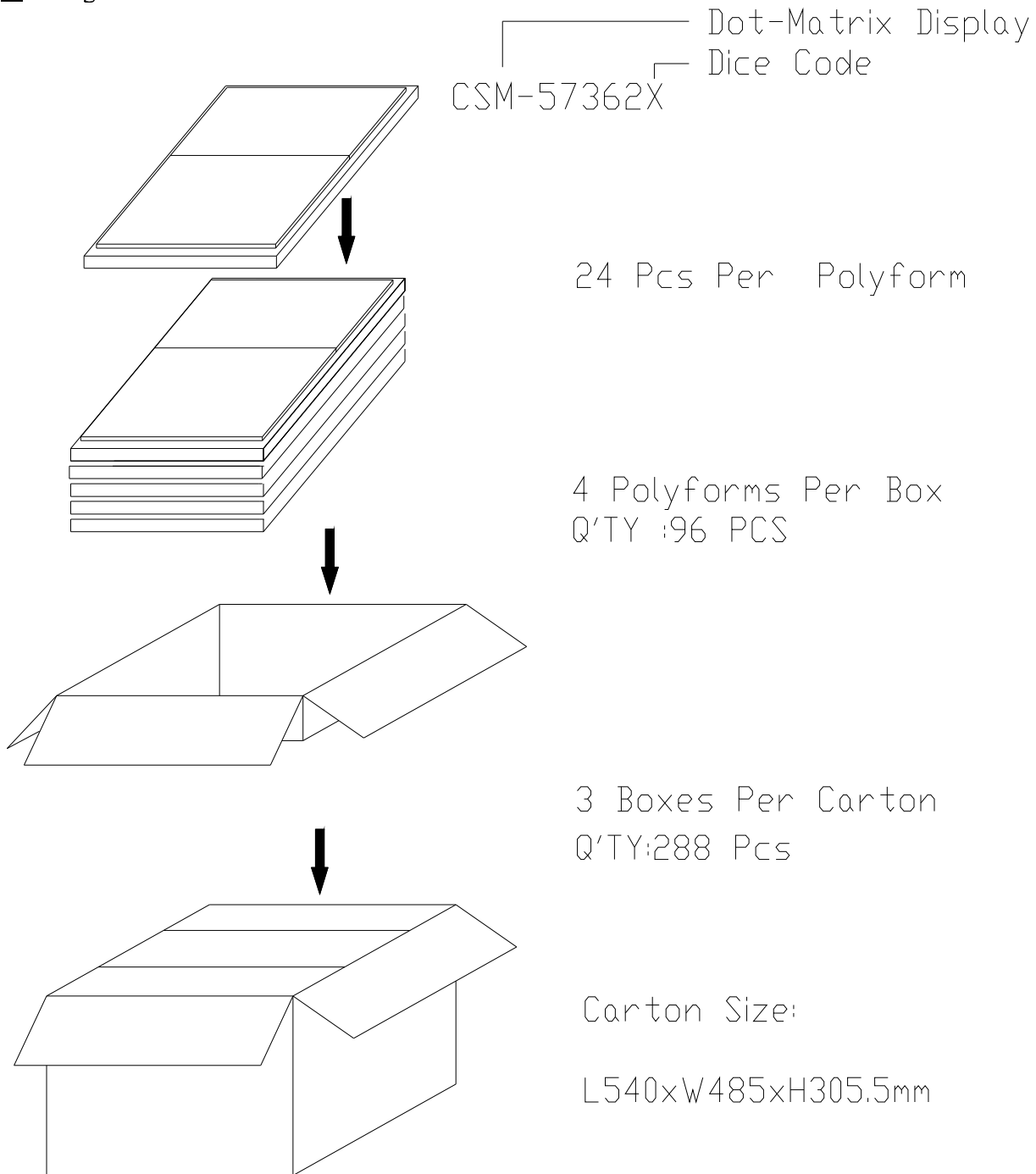
DUTY CYCLE %
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE f=1 KHz)



Spec. No.	PS-ND-0710
Rev.	A

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■ Package Dimensions



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