



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

PRODUCT SPECIFICATION

Model No : CSM-57271VM9/CSM-57281VM9

Descriptions:
<ul style="list-style-type: none"> • 2.0Inch Dot-Matrix Display • Dot Pitch 7.62mm • 5*7 Array with X-Y Select. • CSM-57271: Column Anode, Row Cathode • CSM-57281: Column Cathode, Row Anode • Emitting Color: Super Bright Orange & Super Bright Green



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.

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-57271VM9/CSM-57281VM9

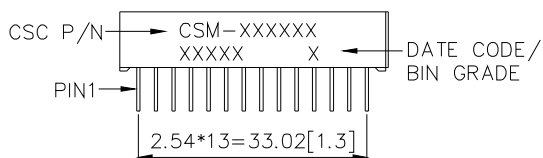
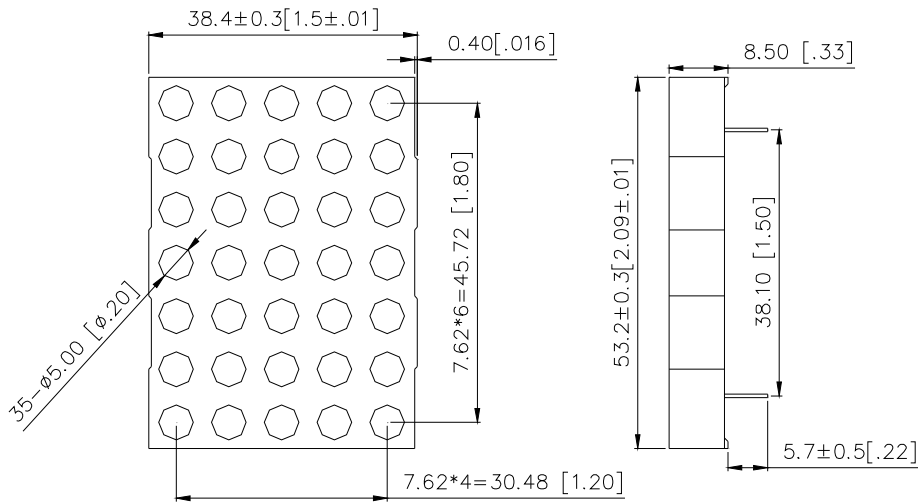
■ **Features -**

1. 2.0 inch (50.7mm) 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-57271VM9	AlGaInP	Super-Bright Orange	Anode	Cathode
	AlGaInP	Super-Bright Green		
CSM-57281VM9	AlGaInP	Super-Bright Orange	Cathode	Anode
	AlGaInP	Super-Bright Green		

■ **Package Dimensions -**



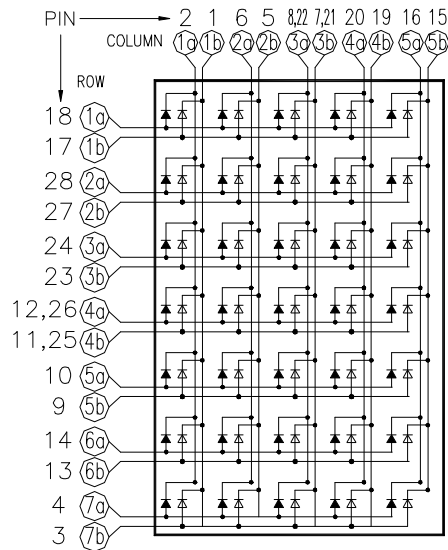
NOTE:

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



Model No : CSM-57271VM9/CSM-57281VM9

Internal Circuit Diagrams -



CSM-57271		CSM-57281	
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	Anode Column 1b	15	Cathode Column 5b
2	Anode Column 1a	16	Cathode Column 5a
3	Cathode Row 7b	17	Anode Row 1b
4	Cathode Row 7a	18	Anode Row 1a
5	Anode Column 2b	19	Cathode Column 4b
6	Anode Column 2a	20	Cathode Column 4a
7	Anode Column 3b	21	Cathode Column 3b
8	Anode Column 3a	22	Cathode Column 3a
9	Cathode Row 5b	23	Anode Row 3b
10	Cathode Row 5a	24	Anode Row 3a
11	Cathode Row 4b	25	Anode Row 4b
12	Cathode Row 4a	26	Anode Row 4a
13	Cathode Row 6b	27	Anode Row 2b
14	Cathode Row 6a	28	Anode Row 2a

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



Model No : CSM-57271VM9/CSM-57281VM9

■ 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			



Model No : CSM-57271VM9/CSM-57281VM9

■ Electro-optical Characteristics -

Super Bright Orange		(Ta=25°C)				
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V _F	-	2.0	2.8	V	I _F =20mA
Luminous Intensity Per Segment	I _v	-	40	-	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 =5V
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 Segment	V _F	-	2.1	2.8	V	I _F =20mA
Luminous Intensity Per Segment	I _v	-	18	-	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 =5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	I _p =80mA 1/16Duty



Model No : CSM-57271VM9/CSM-57281VM9

■ Typical Electrical / Optical Characteristics Curves -Super Bright Orange

(Ta = 25°C Unless Otherwise Noted)

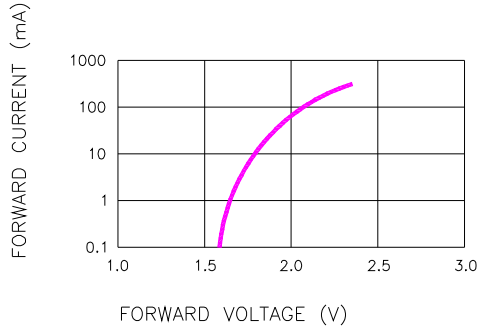


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

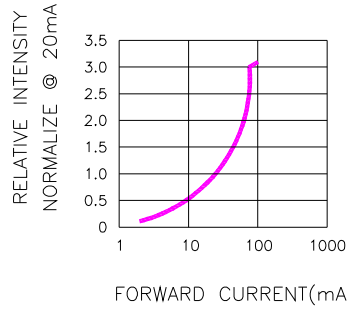


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

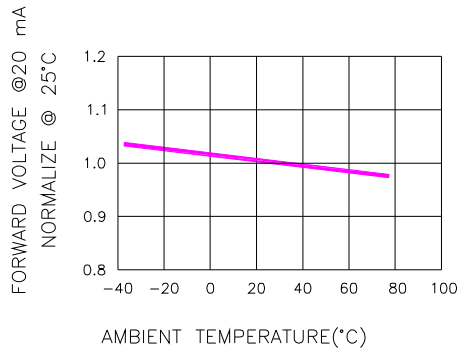


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

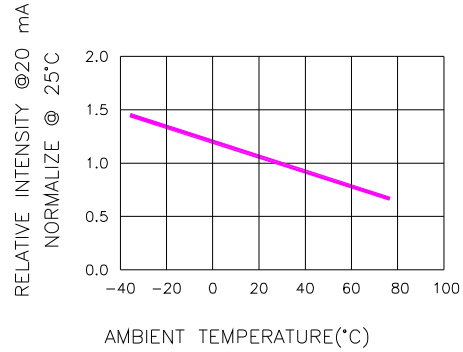


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

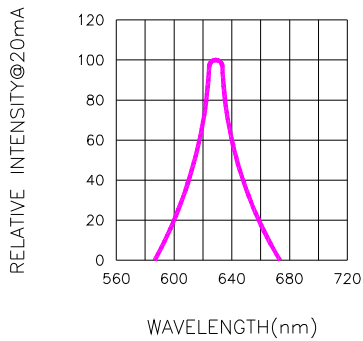


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH



Model No : CSM-57271VM9/CSM-57281VM9

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

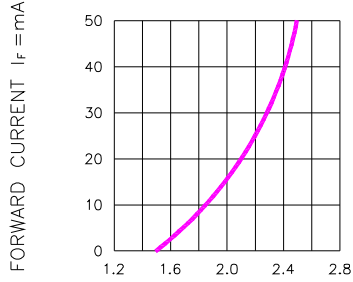


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

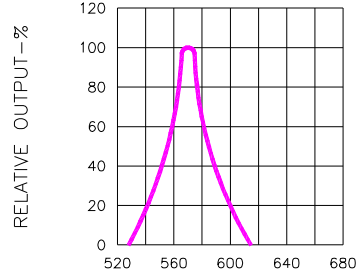


Fig.2 SPECTRAL RESPONSE

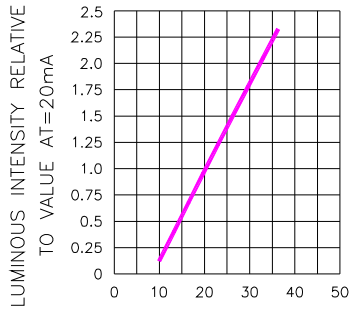


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

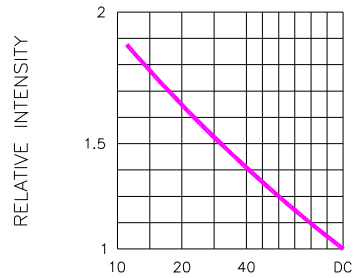


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

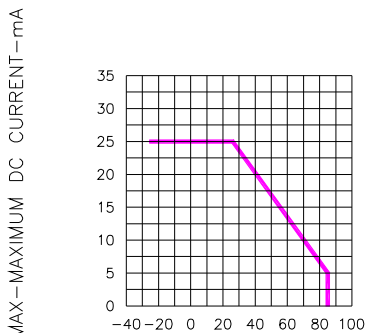


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

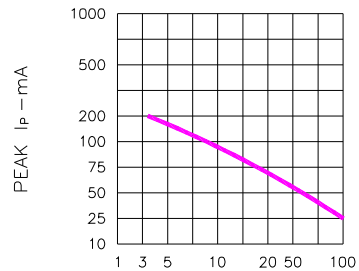


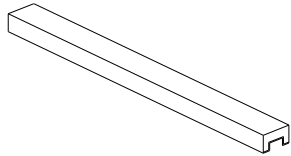
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f = 1 KHz)



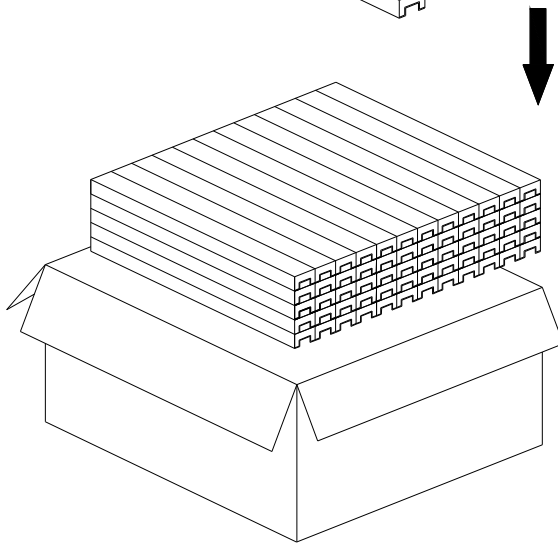
Model No: CSM-57271VM9/CSM-57281VM9

■ Package Dimensions

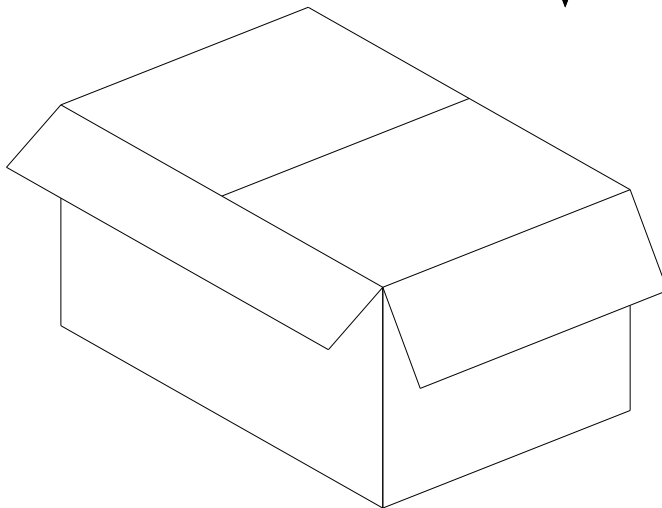
Dot-Matrix Display
Dice Code
CSM-57271/57281X



20 Pcs Per Tube



16 Tubes Per Inner Box
Total Q'TY: 320 Pcs



2 Inner Boxes Per Carton.

Total Q'TY: 640 Pcs

Carton Size:

L540*W485*H305.5 mm

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