



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

PRODUCT SPECIFICATION

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

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: Orange & Yellow Green



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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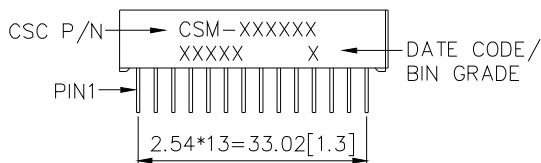
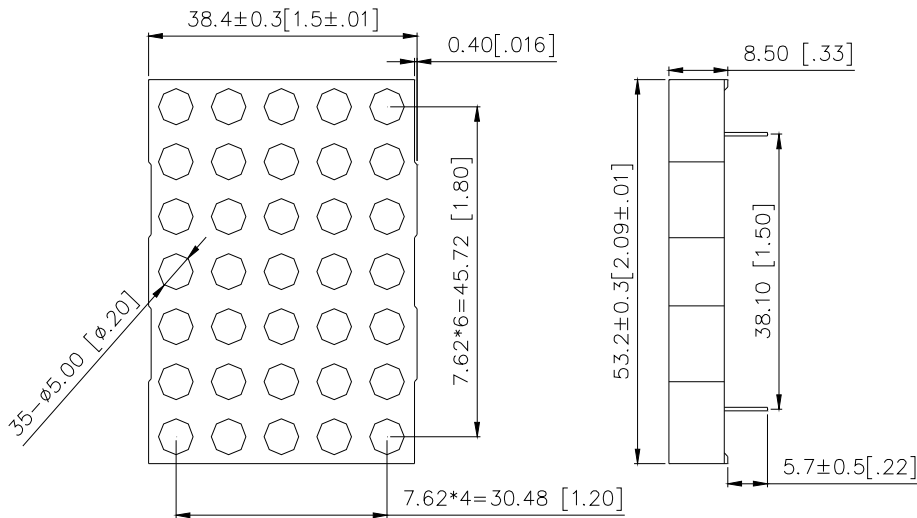
■ Features -

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-57271EG	GaAsP	Orange	Anode	Cathode
	GaP	Yellow Green		
CSM-57281EG	GaAsP	Orange	Cathode	Anode
	GaP	Yellow Green		

■ Package Dimensions -



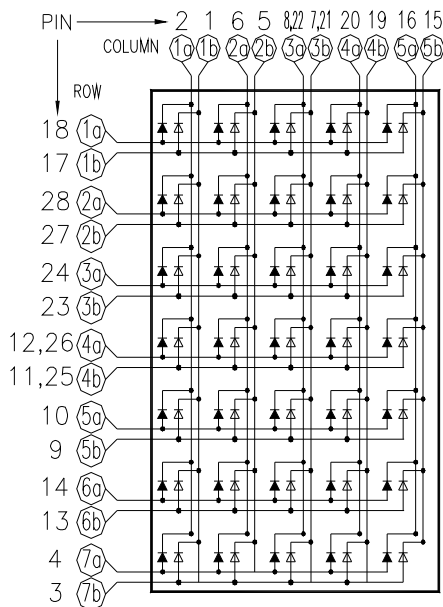
NOTE:

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



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Internal Circuit Diagrams -



CSM-57271		CSM-57281	
PIN NO.	FUNCTION	PIN NO.	FUNCTION
1	Anode Column 1b	15	Cathode Column 1b
2	Anode Column 1a	16	Cathode Column 1a
3	Cathode Row 7b	17	Anode Row 1b
4	Cathode Row 7a	18	Anode Row 1a
5	Anode Column 2b	19	Cathode Column 2b
6	Anode Column 2a	20	Cathode Column 2a
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 6b
14	Cathode Row 6a	28	Anode Row 6a

NOTE: "a" for Orange color chip.
"b" for Yellow Green color chip



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■ Absolute Maximum Rating -

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			

Yellow 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 -

Orange							(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	-	6	-	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	-	35	-	nm	I _F =20mA	
Reverse Current	I _R	-	-	100	μA	V _R =5V	
Luminous Intensity Matching Ratio	I _{V-m}	-	-	2:1	-	I _p =80mA 1/16Duty	

Yellow 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	-	7	-	mcd	I _F =10mA	
Peak Emission Wavelength	λ _p	-	568	-	nm	I _F =20mA	
Dominant Wavelength	λ _d	-	572	-	nm	I _F =20mA	
Spectrum Radiation Bandwidth	Δλ	-	30	-	nm	I _F =20mA	
Reverse Current	I _R	-	-	100	μA	V _R =5V	
Luminous Intensity Matching Ratio	I _{V-m}	-	-	2:1	-	I _p =80mA 1/16Duty	



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■ Typical Electrical / Optical Characteristics Curves -Orange
($T_a = 25^\circ\text{C}$ Unless Otherwise Noted)

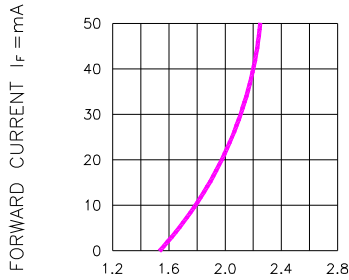


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

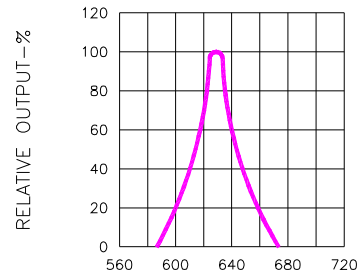


Fig.2 SPECTRAL RESPONSE

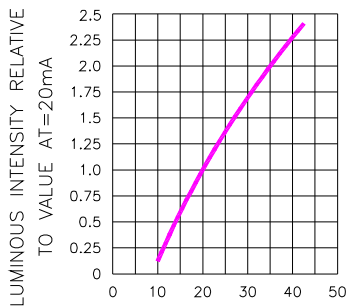


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

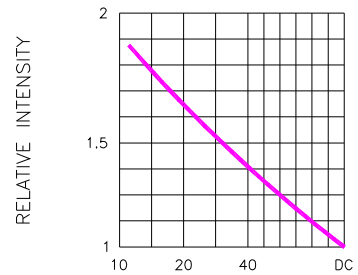


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

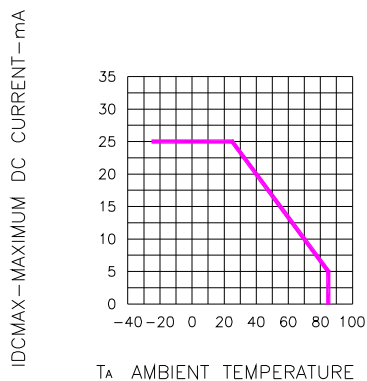


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

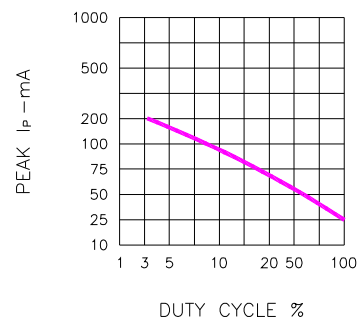


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE $f=1\text{ KHz}$)



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■ Yellow Green

(Ta = 25°C Unless Otherwise Noted)

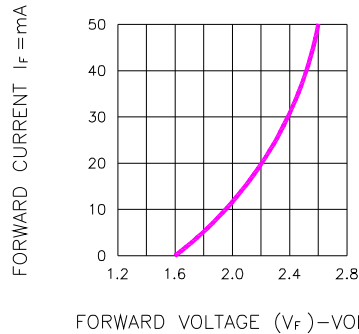


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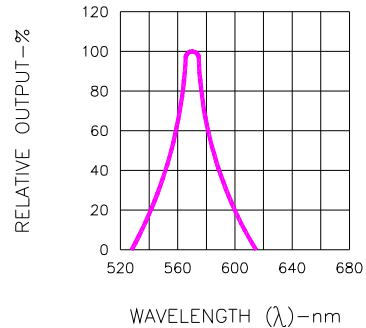


Fig.2 SPECTRAL RESPONSE

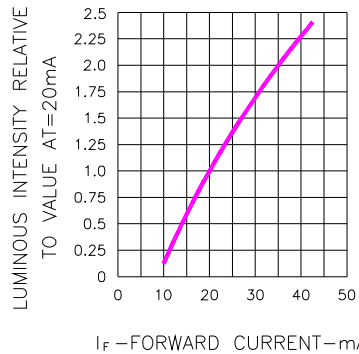


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

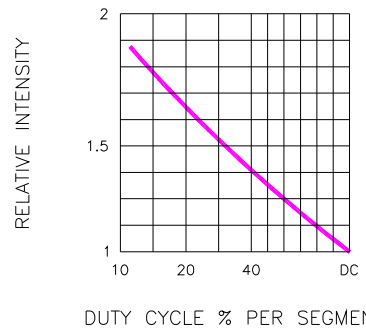


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

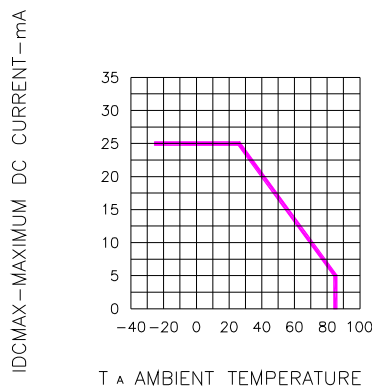


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

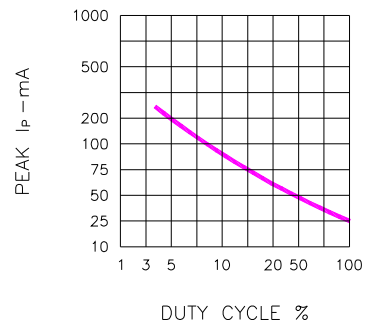


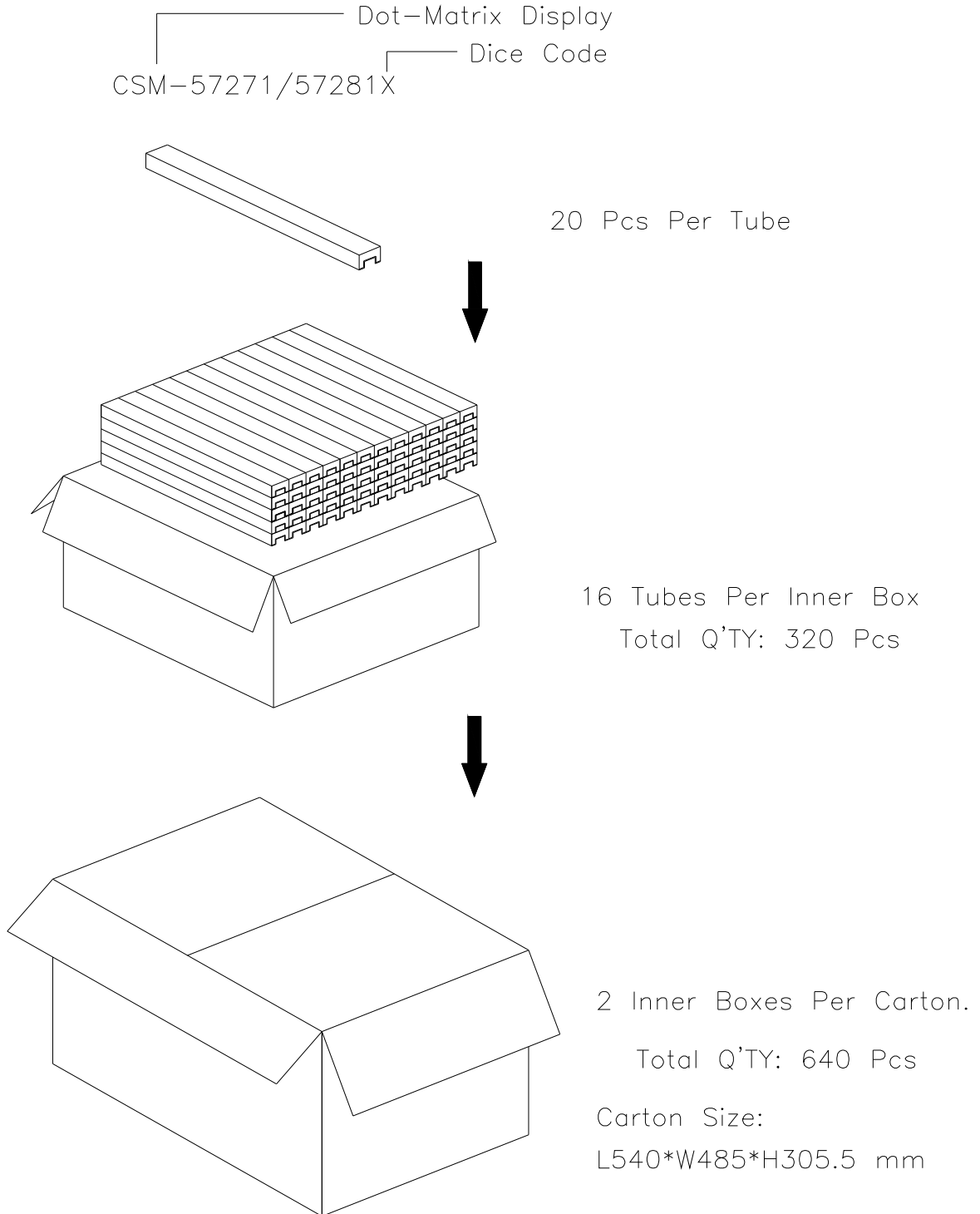
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)



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■ Package Dimensions



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