CHINA
SEMICONDUCTOR
CORPORATION

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

PRODUCT SPECIFICATION

Model No：CSM-57211S/CSM-57221S

Descriptions:
• 2.0Inch Dot-Matrix Display
• 5*7 Array with X-Y Select.
• CSM-57211: Column Anode, Row Cathode
• CSM-57221: Column Cathode, Row Anode
• Emitting Color： Super-Bright Red

CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No：CSM-57211S/CSM-57221S

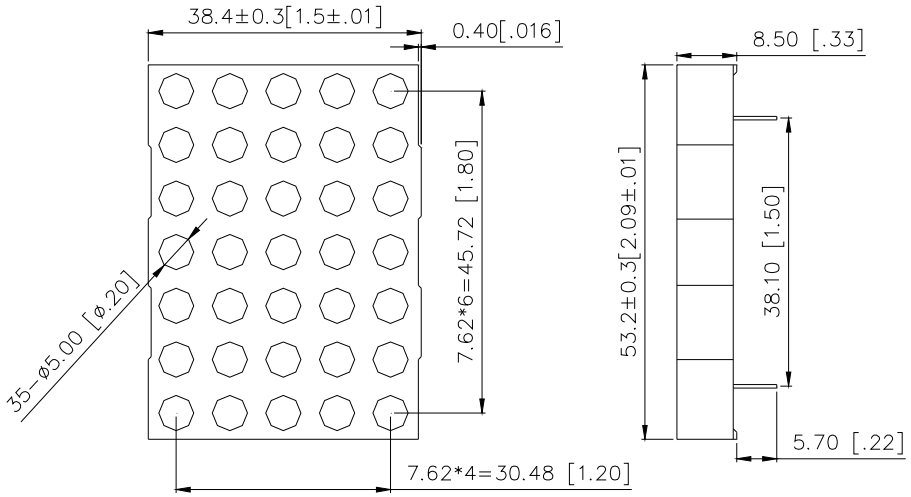
■ Features -

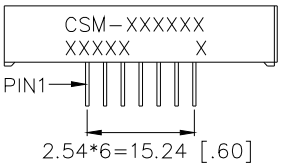
1. 2.0 inch (50.7mm) Matrix height.
2. Case mold type.
3. RoHs compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

■ Device Selection Guide -

Part No.	Chip		Description	
	Material	Emitted Color	Column	Row
CSM-57211S	AlGaAs	Super-Bright Red	Anode	Cathode
CSM-57221S			Cathode	Anode

■ Package Dimensions -

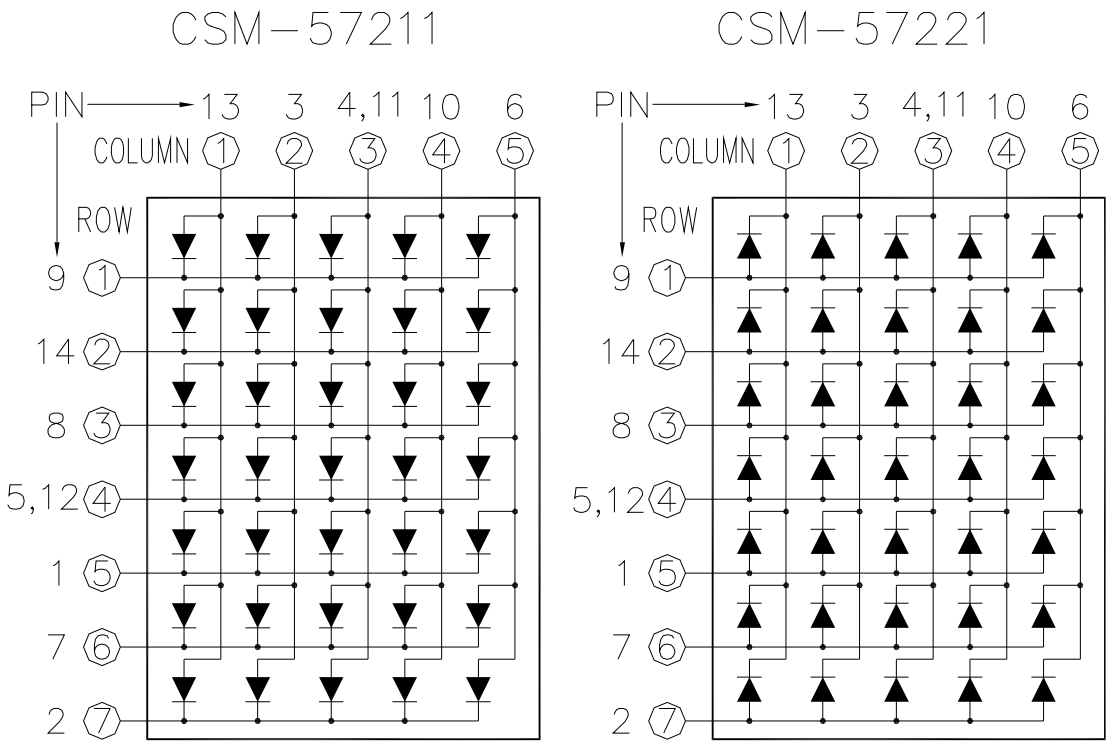




NOTE:
1 All pins are ø0.5(.02).
2 All dimensions are in millimeters (inch), tolerance is ±0.25 (.01) unless otherwise noted.

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■ Internal Circuit Diagrams -



CSM−57211			
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 4	12	Cathode Row 4
6	Anode Column 5	13	Anode Column 1
7	Cathode Row 6	14	Cathode Row 2

CSM−57221			
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 4	12	Anode Row 4
6	Cathode Column 5	13	Cathode Column 1
7	Anode Row 6	14	Anode Row 2

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■ Absolute Maximum Rating -

(Ta=25℃)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P_{AD}	75	mW
Continuous Forward Current Per Dice	I_{AF}	30	mA
Peak Current Per Dice(duty cycle 1/10, 1kHz)	I_{PF}	120	mA
Derating Linear From 25℃ Per Dice	-	0.42	mA/℃
Reverse Voltage Per Dice	V_R	5	V
Operating Temp.	Topr	-35 ~ +85	℃
Storage Temp.	Tstg	-35 ~ +85	℃
Solder temperature 1/16 inch below seating plane for 3 seconds at 260℃			

■ Electro-optical Characteristics -

(Ta=25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V_F	-	1.8	2.5	V	I_F=20mA
Luminous Intensity Per Segment	Iv	-	10	-	mcd	I_F=10mA
Peak Emission Wavelength	λp	-	660	-	nm	I_F=20mA
Dominant Wavelength	λd	-	644	-	nm	I_F=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	I_F=20mA
Reverse Current	IR	-	-	100	μA	V_R=5V
Luminous Intensity Matching Ratio	IV-m	-	-	2:1	-	Ip=80mA 1/16Duty

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■ Typical Electrical / Optical Charateristics Curves -

(Ta = 25℃ Unless Otherwise Noted)

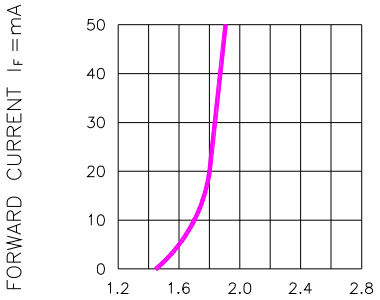


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

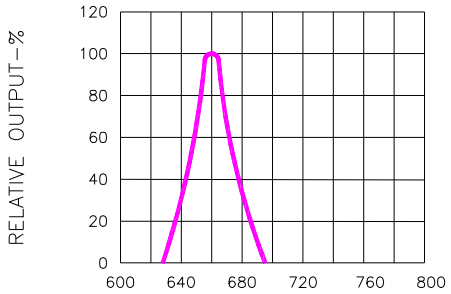


Fig.2 SPECTRAL RESPONSE

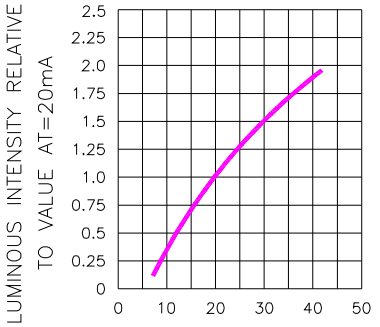


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

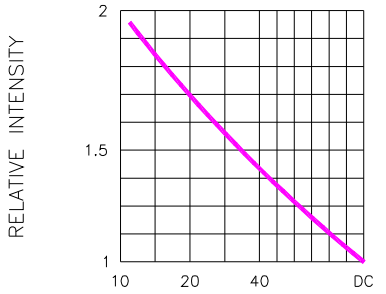


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

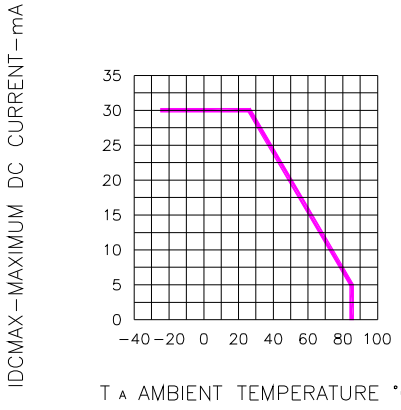


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

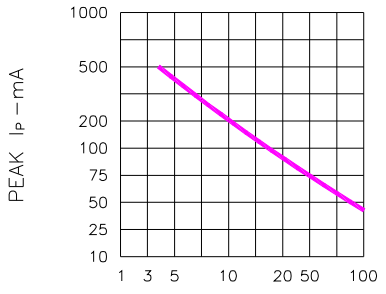
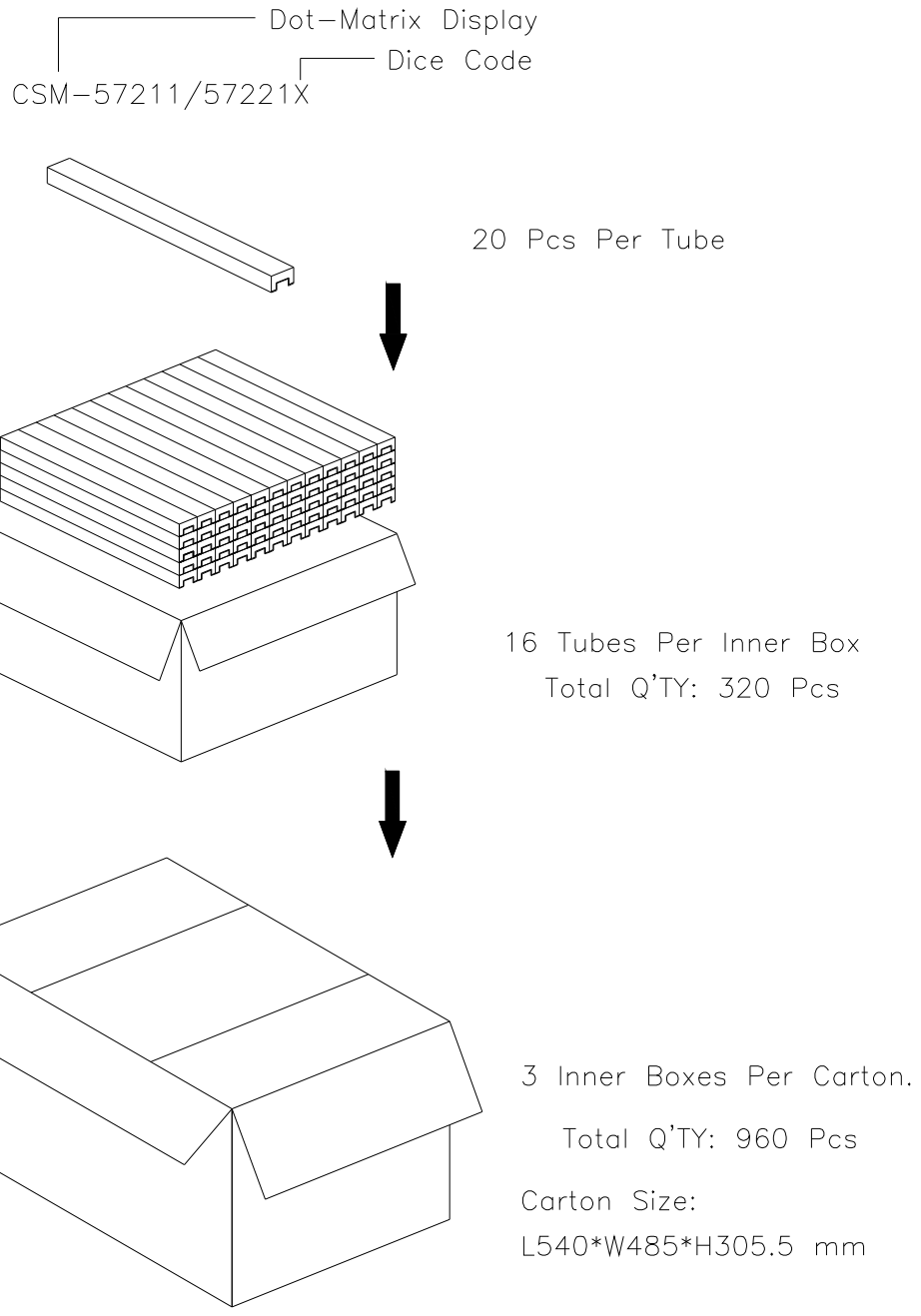


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

Model No：CSM-57211S/CSM-57221S

■ Package Dimensions



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