



# PRODUCT SPECIFICATION

**Model No : CSM-16151T9/16161T9**

## Descriptions:

- 1.5 Inch 16X16 Dot-Matrix Display
- Dot Pitch 2.5mm
- CSM-16151: Column Anode, Row Cathode
- CSM-16161: Column Cathode, Row Anode
- Emitting Color: Super Bright Yellow



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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**Model No : CSM-16151/16161T9**

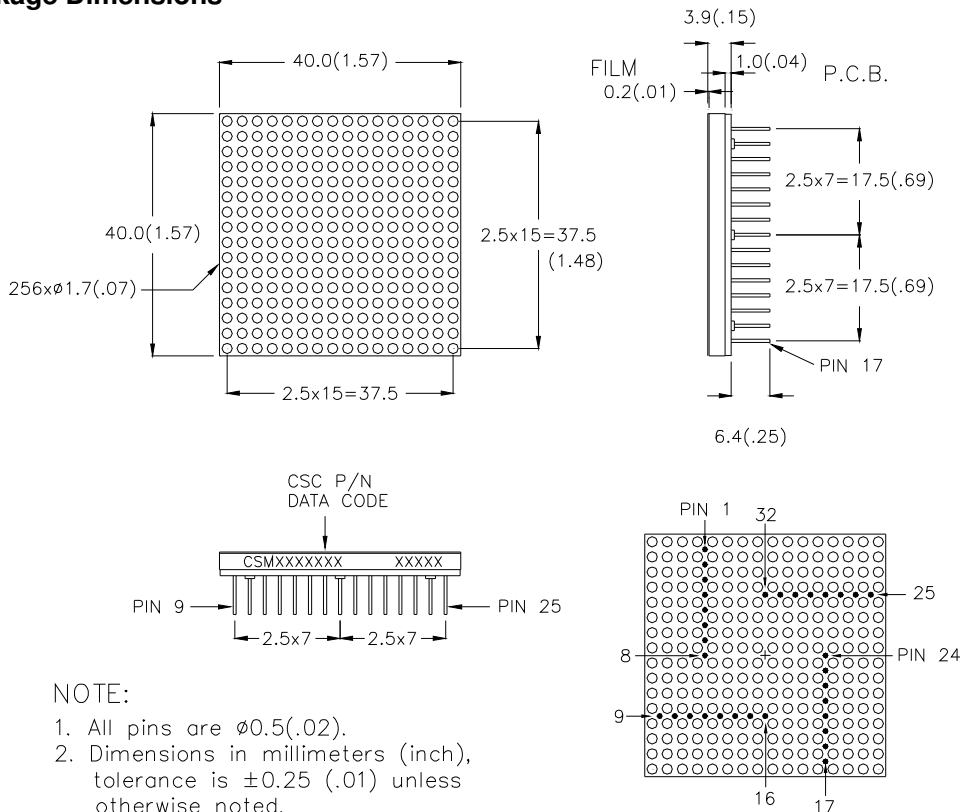
**Features -**

1. 1.5 inch (39.2mm) 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		
<b>CSM-16151T9</b>	<b>AlGaInP</b>	<b>Super Bright Yellow</b>	<b>Anode</b>	<b>Cathode</b>
<b>CSM-16161T9</b>	<b>AlGaInP</b>	<b>Super Bright Yellow</b>	<b>Cathode</b>	<b>Anode</b>

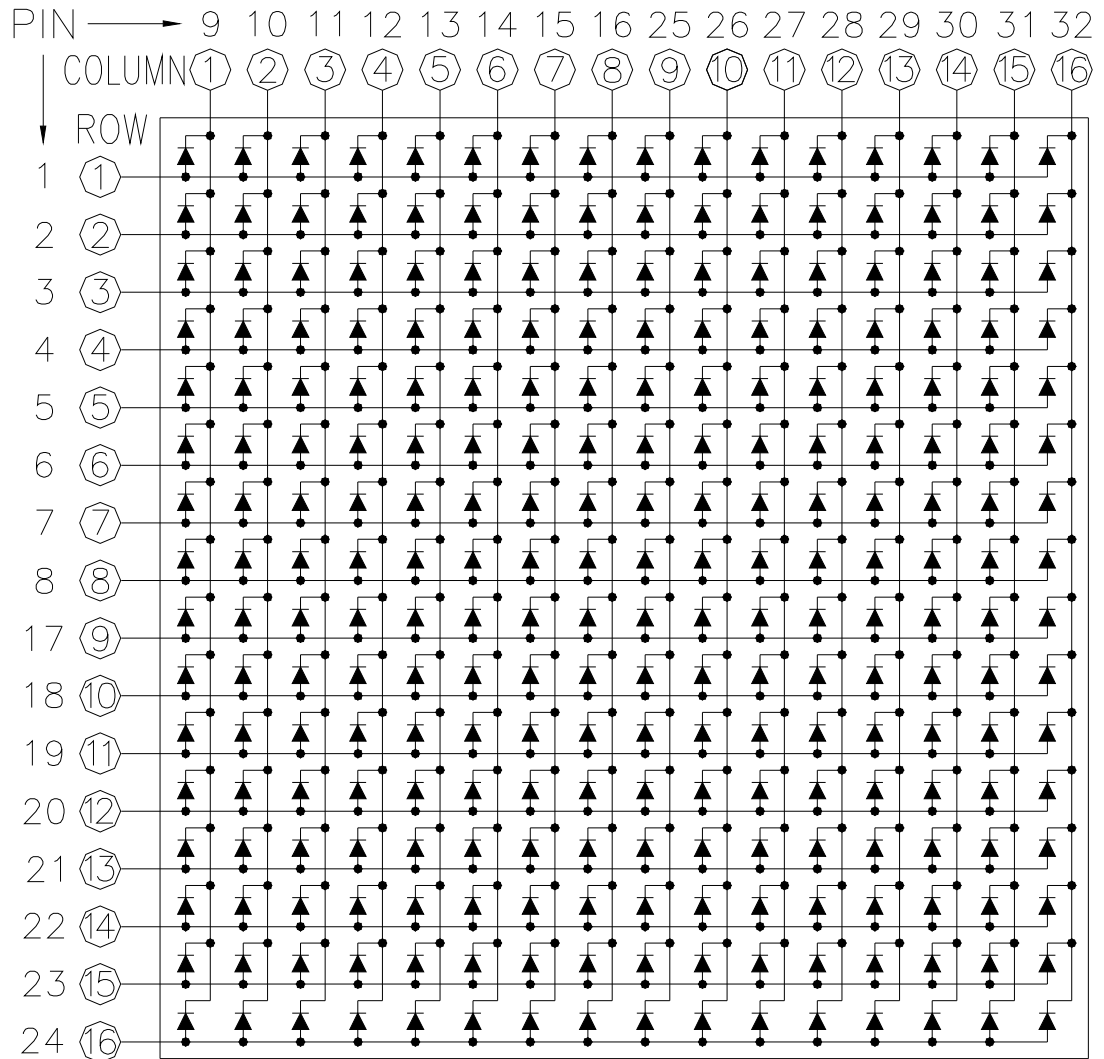
**Package Dimensions -**





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Internal Circuit Diagrams -



CSM-16151 Column Anode, Row Cathode.  
(CSM-16161 Column Cathode, Row Anode.)



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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	<b>Pd</b>	75	mW
Continuous Forward Current Per Dice	<b>IAF</b>	25	mA
Peak Current Per Dice(duty cycle 1/10, 1kHz)	<b>IPF</b>	90	mA
Derating Linear From 25°C Per Dice	-	0.33	mA/°C
Reverse Voltage Per Dice	<b>VR</b>	5	V
Operating Temp.	<b>Topr</b>	-35 ~ +85	°C
Storage Temp.	<b>Tstg</b>	-35 ~ +85	°C
Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C			

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	<b>VF</b>	-	2.1	2.8	V	IF=20mA
Luminous Intensity Per Segment	<b>Iv</b>	-	15	-	mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$	-	592	-	nm	IF=20mA
Dominant Wavelength	$\lambda_d$	-	590	-	nm	IF=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	IF=20mA
Reverse Current	<b>IR</b>	-	-	100	$\mu$ A	VR=5V
Luminous Intensity Matching Ratio	<b>IV-m</b>	-	-	2:1	-	IF=10mA



Spec. No.	PS-ND-08090307
Rev.	A

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**Typical Electrical / Optical Characteristics Curves -**

**(Ta = 25°C Unless Otherwise Noted)**

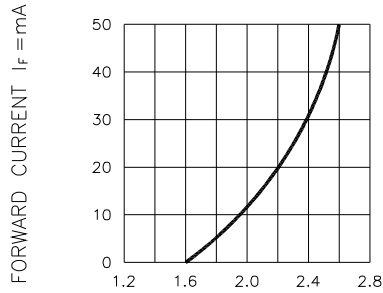


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

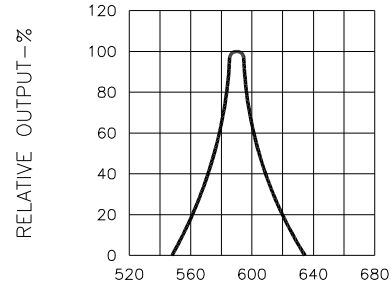


Fig.2 SPECTRAL RESPONSE

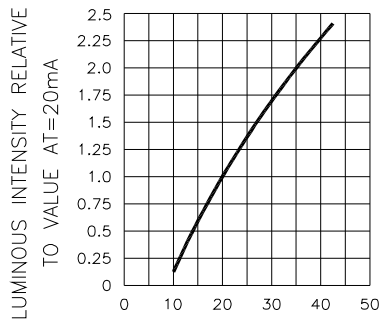


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

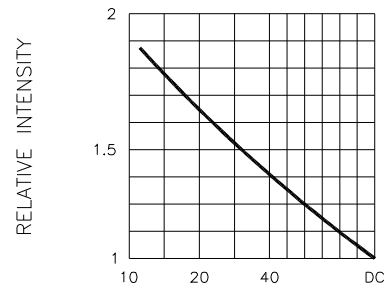


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

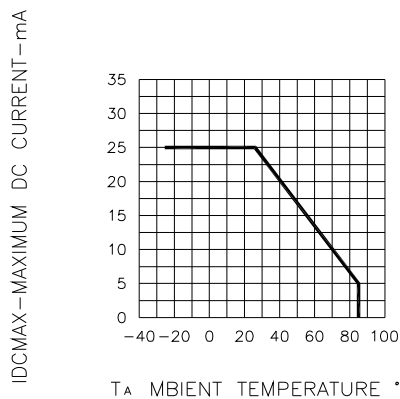


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

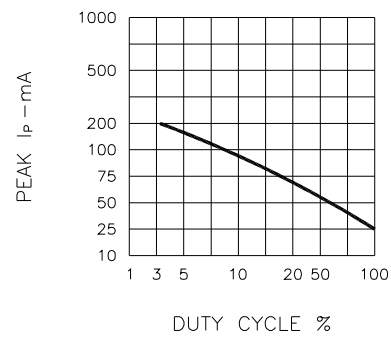


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)