



# PRODUCT SPECIFICATION

**Model No : CSQ-2842M9/2841M9**

Descriptions:
<ul style="list-style-type: none"> <li>• 0.28 Inch Quad Digit Display</li> <li>• CSQ-2842: Common Anode</li> <li>• CSQ-2841: Common Cathode</li> <li>• Emitting Color: Super Bright Yellow Green</li> </ul>



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

**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 : CSQ-2842/2841M9**

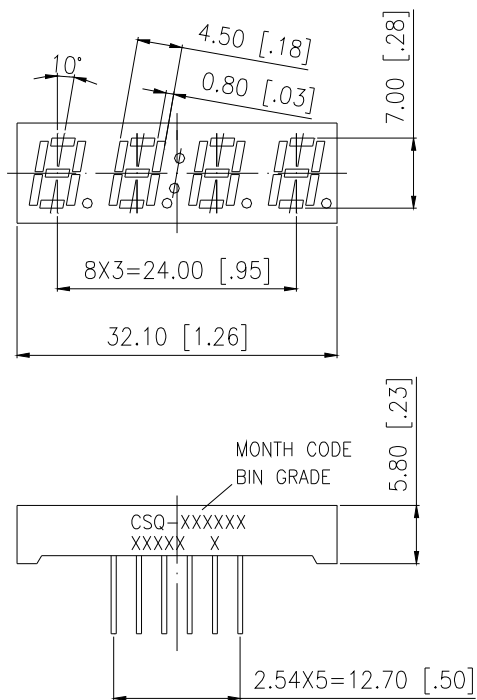
**Features -**

1. 0.28 inch (7.0mm) digit 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	
CSQ-2842M9	AlGaInP	Super Bright Yellow Green	Common Anode
CSQ-2841M9			Common Cathode

**Package Dimensions -**



**NOTE:**

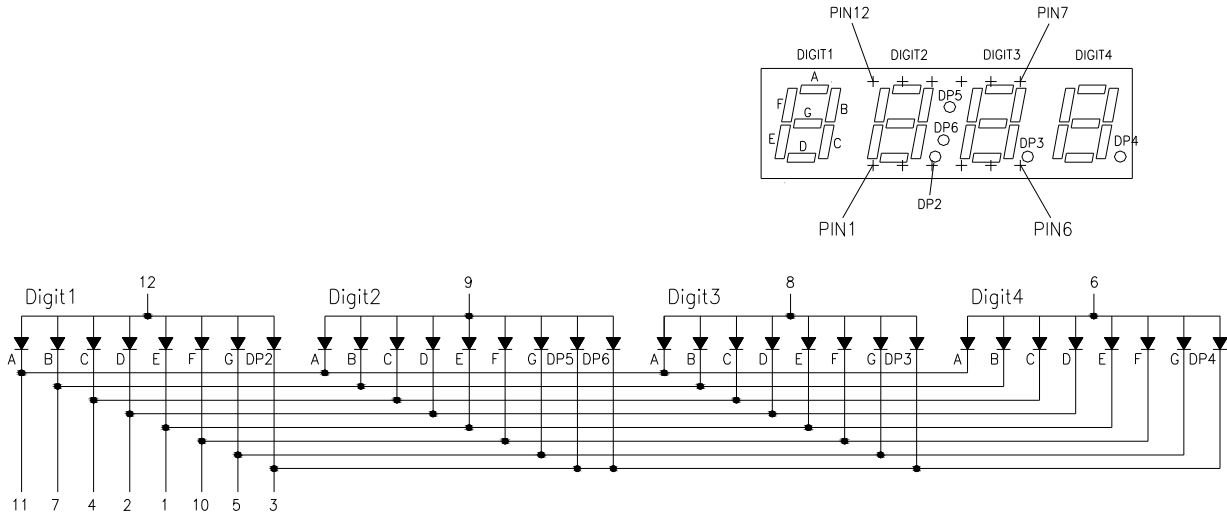
1. All pins are  $\varnothing 0.45$  (.02").
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.25$  (.01) unless otherwise noted.





Model No : CSQ-2842/2841M9

Internal Circuit Diagrams -



CSQ-2842 Common Anode  
(CSQ-2841 Common Cathode)

Absolute Maximum Rating -

(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 : CSQ-2842/2841M9

■ Electro-optical Characteristics -

(Ta=25°C)

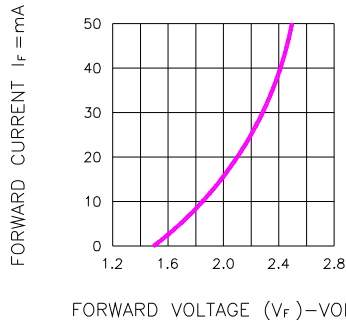
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V <sub>F</sub>	-	2.1	2.8	V	I <sub>F</sub> =20mA
Luminous Intensity Per Segment	I <sub>v</sub>	4000	9000	-	ucd	I <sub>F</sub> =10mA
Peak Emission Wavelength	λ <sub>p</sub>	-	572	-	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	-	570	-	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	-	20	-	nm	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	-	-	100	μA	V <sub>R</sub> =5V
Luminous Intensity Matching Ratio	I <sub>V-m</sub>	-	-	2:1	-	I <sub>F</sub> =10mA



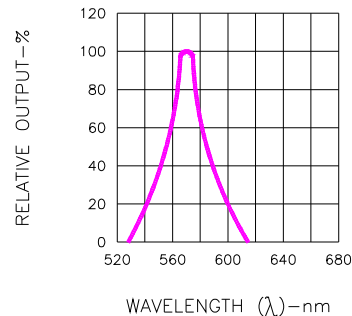
**Model No : CSQ-2842/2841M9**

**Typical Electrical / Optical Characteristics Curves -**

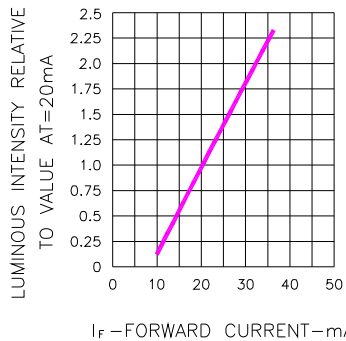
**(Ta = 25°C Unless Otherwise Noted)**



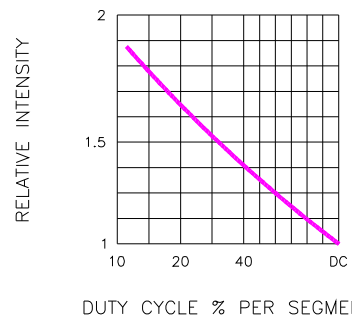
FORWARD VOLTAGE ( $V_F$ )—VOLTS  
Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE



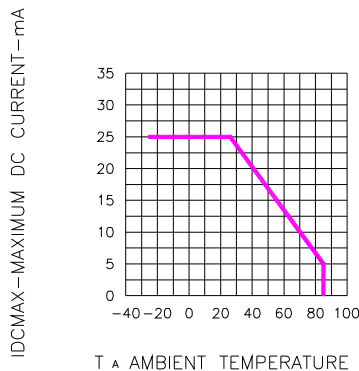
WAVELENGTH ( $\lambda$ )—nm  
Fig.2 SPECTRAL RESPONSE



$I_f$ —FORWARD CURRENT—mA  
Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



DUTY CYCLE % PER SEGMENT  
(AVERAGE  $I_f = 10\text{mA}$ )  
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

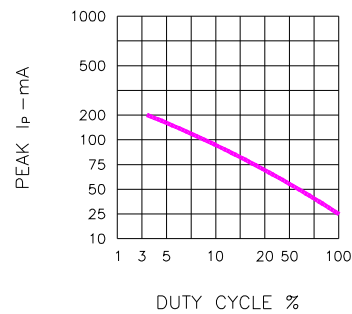


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE  
(REFRESH RATE  $f = 1\text{ KHz}$ )





Model No: CSQ-2842/2841M9

■ Package Dimensions

