



# PRODUCT SPECIFICATION

**Model No : CSD-528V9/529V9**

## Descriptions:

- 0.5 Inch Dual Digits Display
- CSD-528: Common Anode
- CSD-529: Common Cathode
- Emitting Color: Super Bright Orange



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 : CSD-528/529V9**

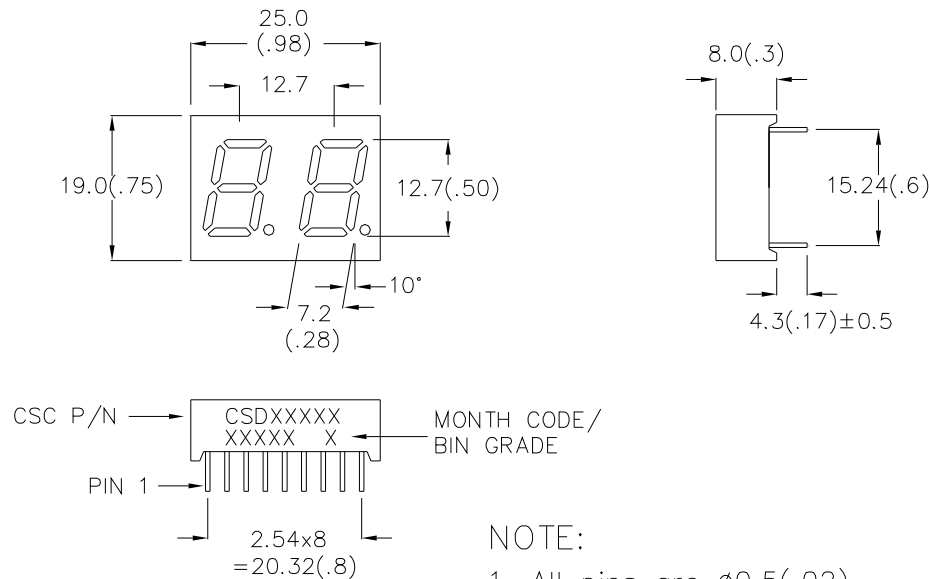
**Features -**

1. 0.5 inch (12.7mm) dight 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	
<b>CSD-528V9</b>	<b>AlGaInP</b>	<b>Super Bright Orange</b>	<b>Common Anode</b>
<b>CSD-529V9</b>	<b>AlGaInP</b>	<b>Super Bright Orange</b>	<b>Common Cathode</b>

**Package Dimensions -**



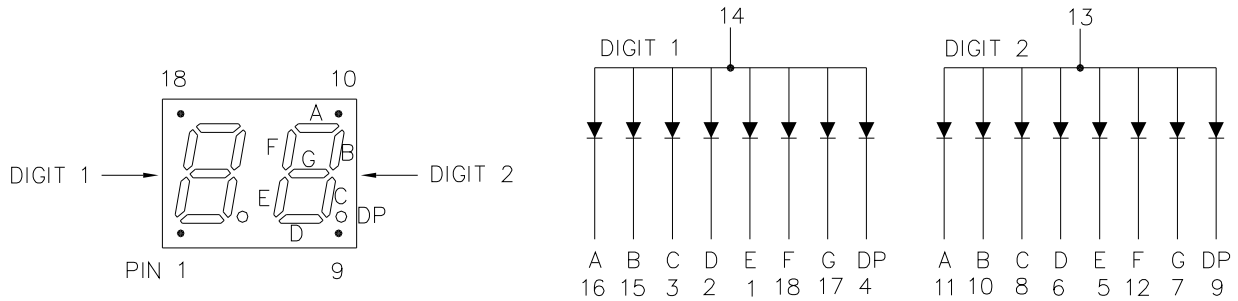
**NOTE:**

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



Model No : CSD-528/529V9

Internal Circuit Diagrams -



CSD-528 Common Anode.  
(CSD-529 is Common Cathode.)

Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	<b>Pd</b>	70	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			



Model No : CSD-528/529V9

■ Electro-optical Characteristics -

(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	$I_v$	-	20	-	ucd	$I_F=10mA$
Peak Emission Wavelength	$\lambda_p$	-	632	-	nm	$I_F=20mA$
Dominant Wavelength	$\lambda_d$	-	624	-	nm	$I_F=20mA$
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	20	-	nm	$I_F=20mA$
Reverse Current	$I_R$	-	-	100	$\mu A$	$V_R=5V$
Luminous Intensity Matching Ratio	$I_V-m$	-	-	2:1	-	$I_F=10mA$



Model No : CSD-528/529V9

■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

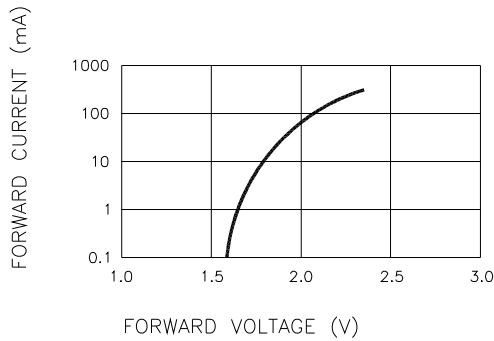


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

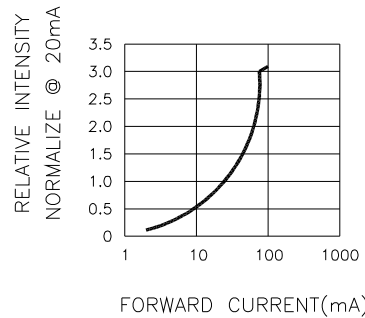


Fig.2 RELATIVE INTENSITY VS. FORWARD CURRENT

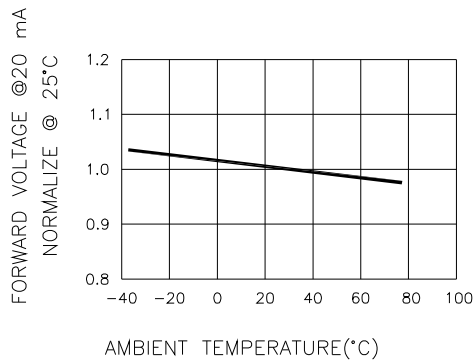


Fig.3 FORWARD VOLTAGE VS. TEMPERATURE

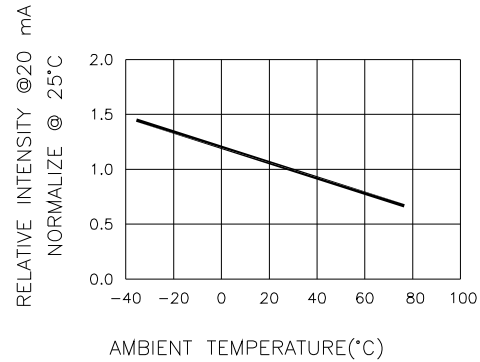


Fig.4 RELATIVE INTENSITY VS. TEMPERATURE

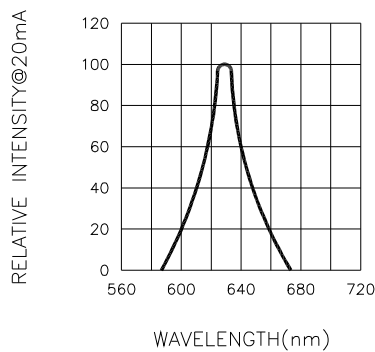


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH