

PRODUCT SPECIFICATION

Model No.: CSDS-4A102V2_CSDS-4A103V2

Descriptions:
<ul style="list-style-type: none"> ■ 4.0 Inch Single Digit Display ■ CSDS-4A102 is Common Anode ■ CSDS-4A103 is Common Cathode ■ Emitting Color: Orange ; Pure Green ■ Standard: -11: Gray face, white segment. -21: Black face, white segment..



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			

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Model No.: CSDS-4A102V2 CSDS-4A103V2

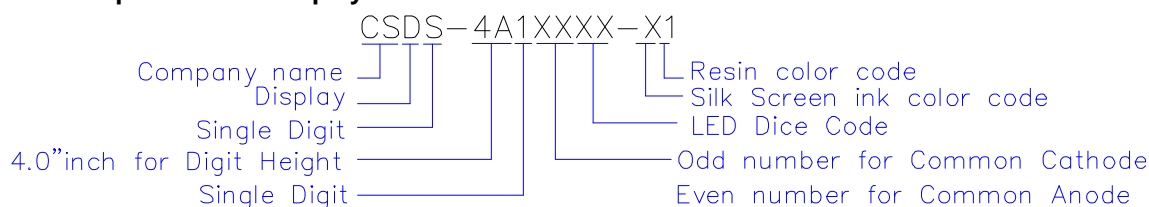
Features -

1. 4.0 inch (101.60mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
5. Easy mounting on P.C. board or socket.

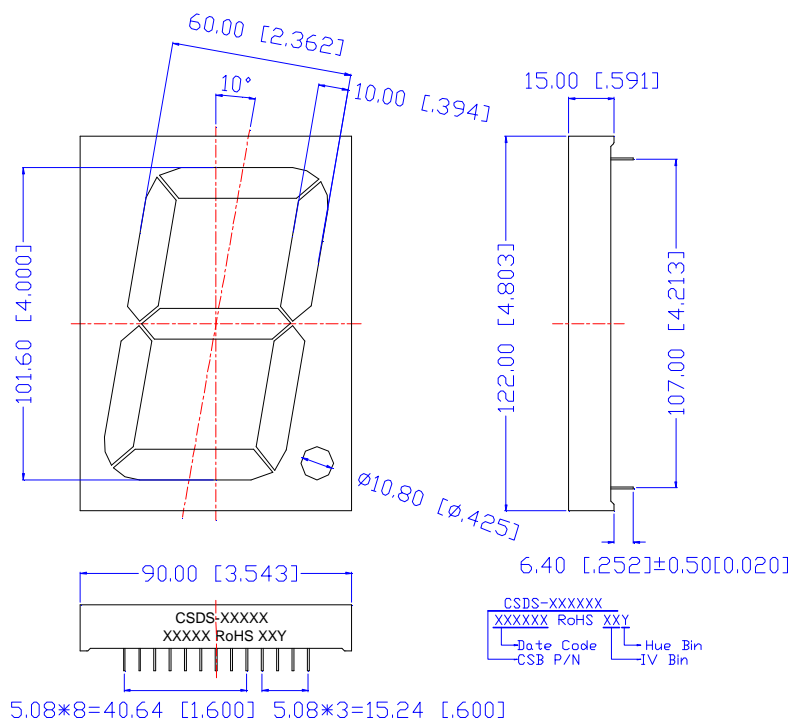
Device Selection Guide -

Model No.	Chip	
	Material	Emitting Color
CSDS-4A10XV2	AlGaInP	Orange
	InGaN	Pure Green

LED Numeric/Alphanumeric Display



Mechanical Dimensions -

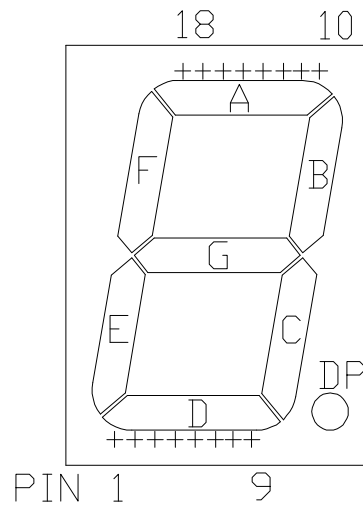


Notes:

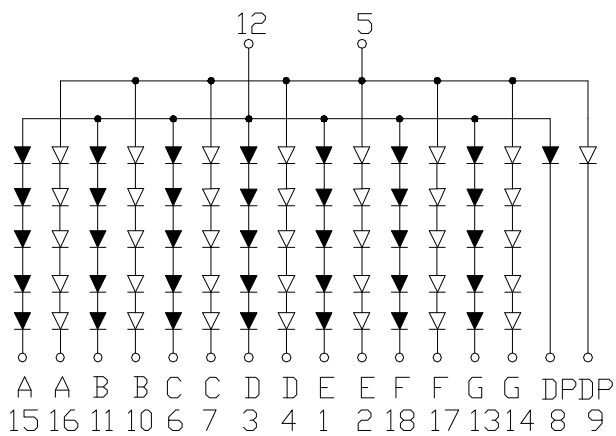
1. All pins are $\phi 0.60[.024] \pm 0.1[.004]$
2. Dimension in millimeter [inch], tolerance is $\pm 0.25 [0.010]$ and angle is $\pm 1^\circ$ unless otherwise noted.
3. Bending \leq Length*1%.

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■ All Light On Segments Feature & Pin Position

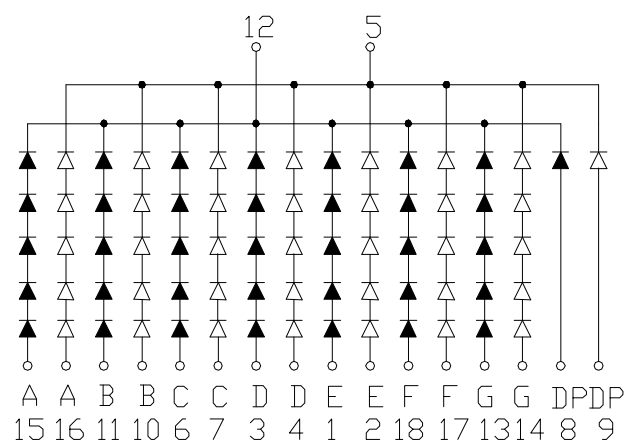


■ Internal Circuit Diagrams -



▼ Deep Red
 ▽ Pure Green

CSDS-4A102 is Common Anode



▼ Deep Red
 ▽ Pure Green

CSDS-4A103 is Common Cathode

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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating		Unit
		2	V	
Power Dissipation Per Dice	P _{AD}	114	70	mW
Derating Liner from 25°C per Dice	-	0.4	0.33	mA/°C
Continuous Forward Current Per Dice	I _{AF}	30	25	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I _{PF}	100	90	mA
Reverse Voltage Per Dice	VR	5	5	V
Electrostatic discharge(HBM)	ESD	1000	/	v
Operating Temp.	T _{opr}	-35 ~ +85		°C
Storage Temp.	T _{stg}	-35 ~ +85		°C
Hand Soldering Temp.	T _{sol}	350		°C

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Chip	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity Per Segment	I _v	2	-	1921	-	mcd	I _F =10mA
		V	-	160	-		
Forward Voltage Per Segment(DP)	VF	2	-	16(3.2)	19(3.8)	V	I _F =20mA
		V	-	10(2)	14(2.8)		
Peak Emission Wavelength / Dominant Wavelength	λ _P /λ _d	2	-	*525	-	nm	I _F =20mA
		V	-	632/625	-		
Reverse Current	I _R		-	-	100	μA	VR=25(5)V
Luminous Intensity Matching Ratio	IV-m		-	-	2:1	-	I _F =10mA

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■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

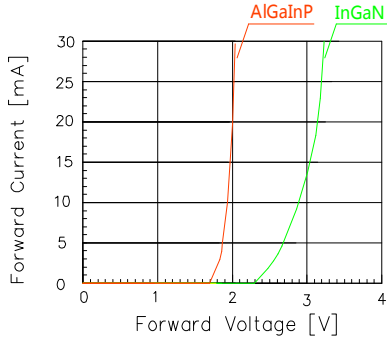


Fig 1. Forward Current vs. Forward Voltage

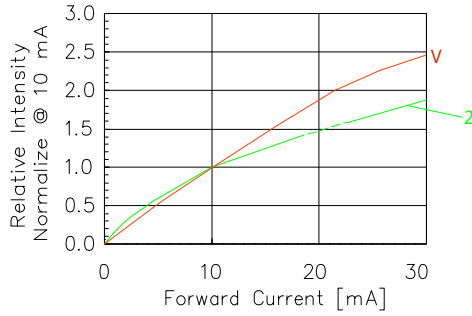


Fig 2. Relative Intensity vs. Forward Current

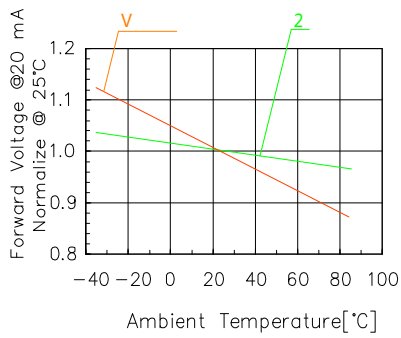


Fig 3. Forward Voltage vs. Temperature

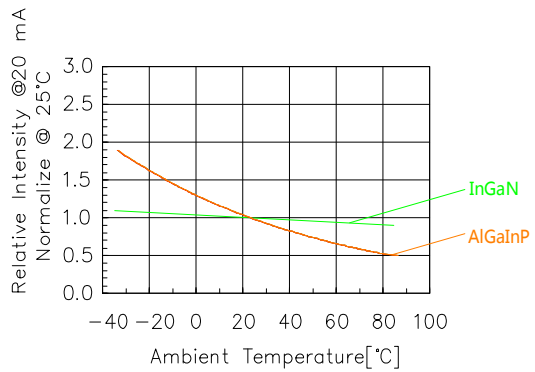


Fig 4. Relative Intensity vs. Temperature

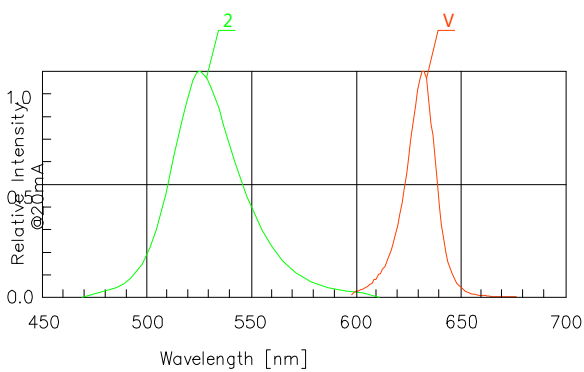


Fig 5. Relative Intensity vs. Wavelength

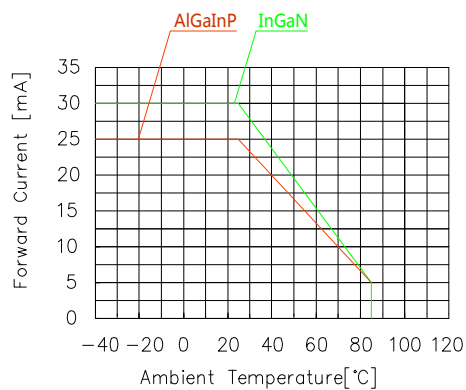


Fig 6. Forward current vs. Temperature

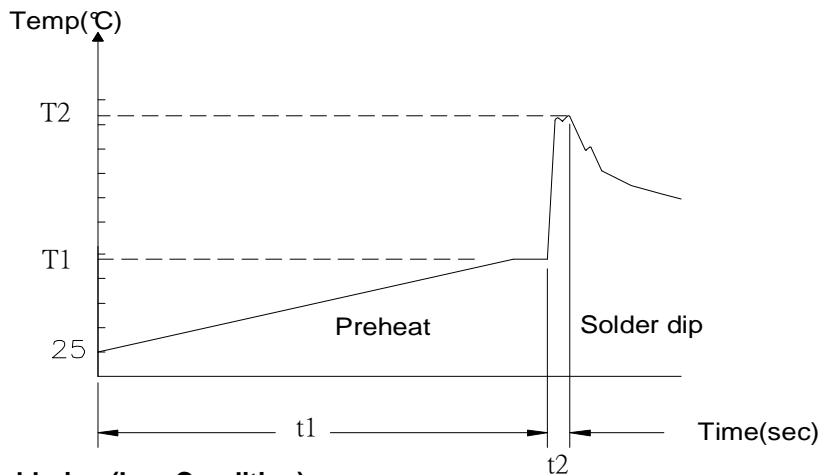
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■ Precautions For Use -

1.Wave Soldering Profile

Distance:1.6mm min(From seating plane)

Item	Condition		Note
Preheat	Temperature T1	80 - 120°C	PWB temperature (Soldering side surface)
	Time t1	60 - 180sec	
Solder Dip	Temperature T2	230 - 260°C	Bath temperature
	Time t2	2 - 4sec	Solder tank passage time



2.Hand Soldering (Iron Condition)

Soldering Iron:30W Max

Temperature 350°C Max

Soldering Time:3 Seconds Max(One Time)

Distance:1.6mm min(From seating plane)