

PRODUCT SPECIFICATION

Model No.: CSOQ-52400W CSOQ-52401W

Descriptions:

- 0.52 Inch Quad Digit Display
- CSOQ-52400 is Common Anode
- CSOQ-52401 is Common Cathode
- Emitting Color: White
- Standard: -11: Gray face, white segment.
-21: Black face, white segment.



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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Model No.: CSOQ-52400W CSOQ-52401W

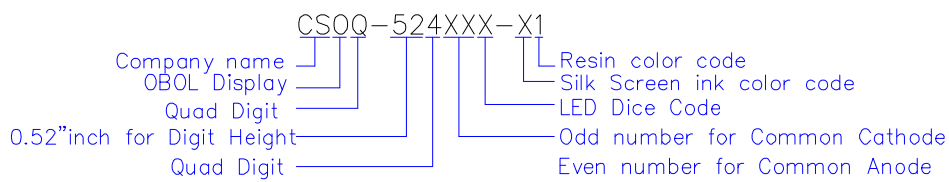
Features -

1. 0.52 inch (13.20mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low power consumption.
6. Easy mounting on P.C. board or socket.

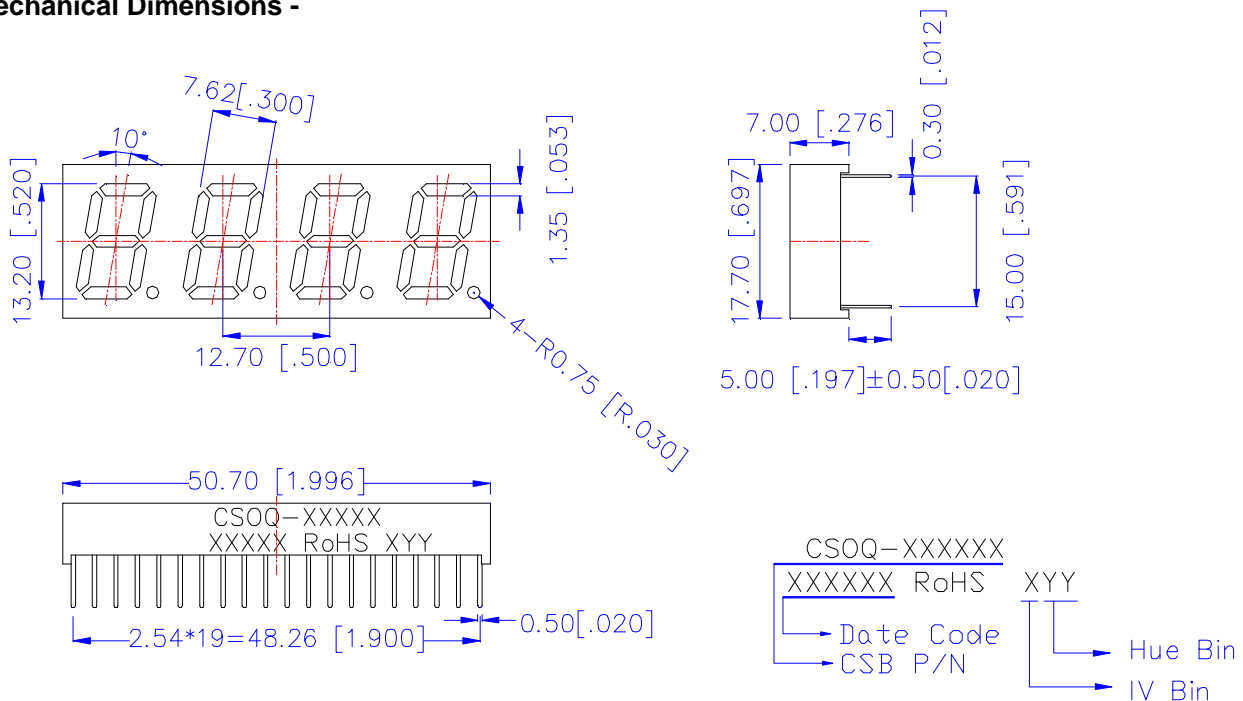
Device Selection Guide -

Model No.	Chip	
	Material	Emitting Color
CSOQ-5240xW	InGaN	White

LED Numeric/Alphanumeric Display



Mechanical Dimensions -

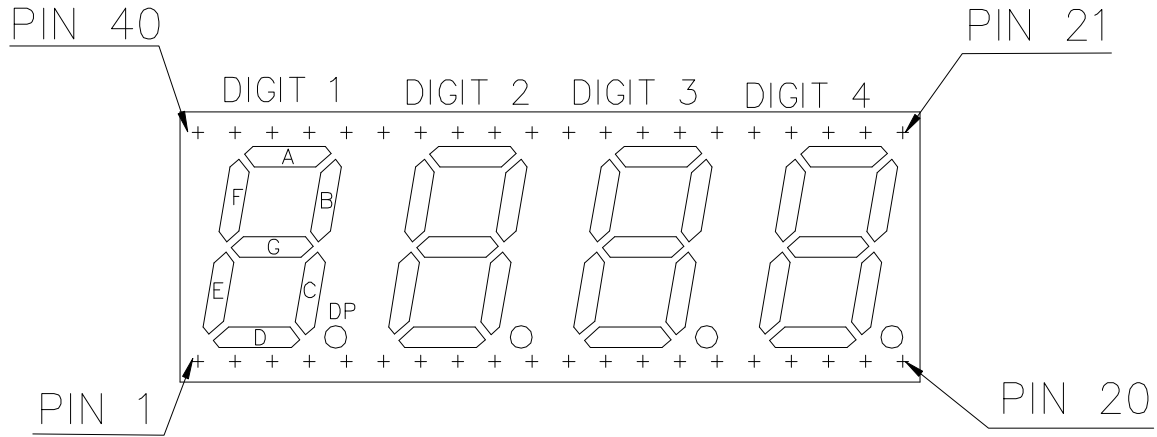


Notes:

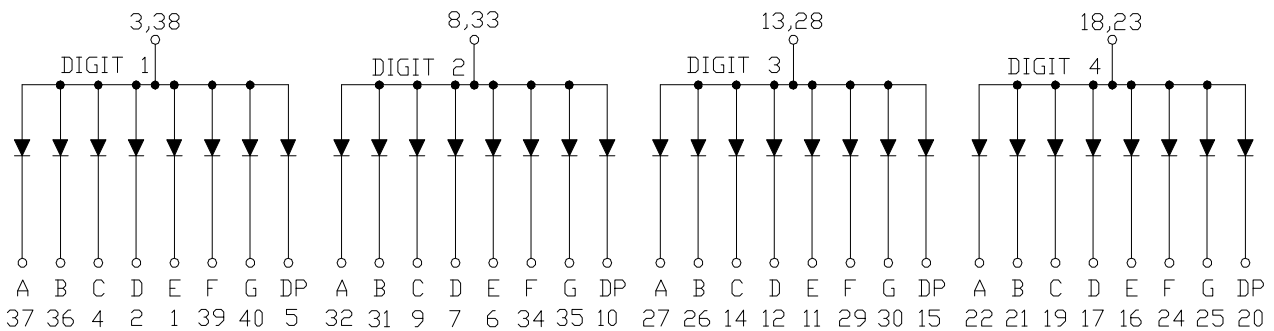
1. All pins are 0.3*0.50
2. Dimension in millimeter [inch], tolerance is ±0.25 [.010] and angle is ±1° unless otherwise noted.
3. Bending ≤ Length*1%.

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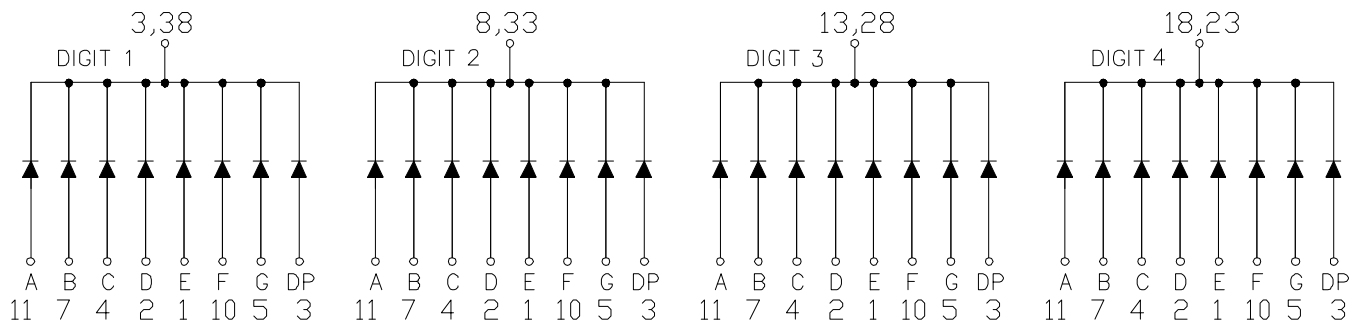
■ All Light On Segments Feature & Pin Position



■ Internal Circuit Diagrams -



CSOQ-52400 is Common Anode



CSOQ-52401 is Common Cathode

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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dice	P_{AD}	114	mW
Derating Liner from 25°C per Dice	-	0.4	mA/°C
Continuous Forward Current Per Dice	I_{AF}	30	mA
Peak Current Per Dice(duty cycle 1/10,1KHz)	I_{PF}	100	mA
Reverse Voltage Per Dice	V_R	5	V
Electrostatic discharge(HBM)	ESD	1000	V
Operating Temp.	Topr	-35 ~ +85	°C
Storage Temp.	Tstg	-35 ~ +85	°C
Hand Soldering Temp.	Tsol	350	°C

■ Electro-optical Characteristics -

(Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V_F	-	3.2	4.0	V	I _F =20mA
Luminous Intensity Per Icon	I_v	-	72	-	mcd	I _F =10mA
Chromaticity Coordinates (Tolerance: ±0.01)	X	-	0.27	-	-	I _F =10mA
	Y	-	0.25	-	-	
Reverse Current	I_R	-	-	100	μA	V _R =5V
Luminous Intensity Matching Ratio	I_{v-m}	-	-	2:1	-	I _F =10mA

Notes:The device can not operated under continuous reverse voltage.

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**Typical Electrical / Optical Characteristics Curves -
(Ta = 25°C Unless Otherwise Noted)**

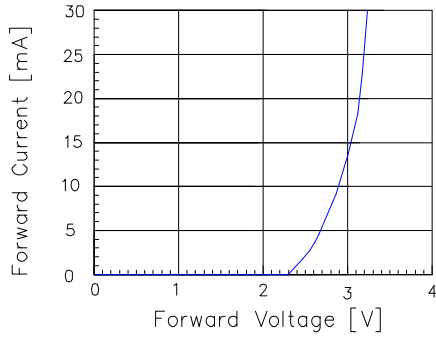


Fig 1. Forward Current vs. Forward Voltage

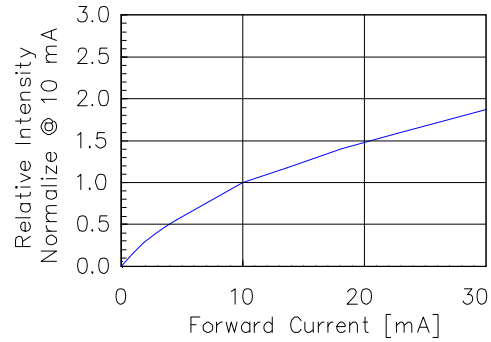


Fig 2. Relative Intensity vs. Forward Current

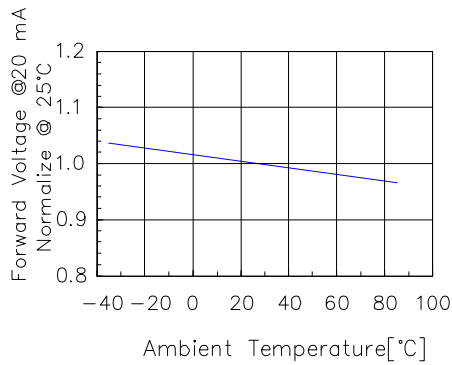


Fig 3. Forward Voltage vs. Temperature

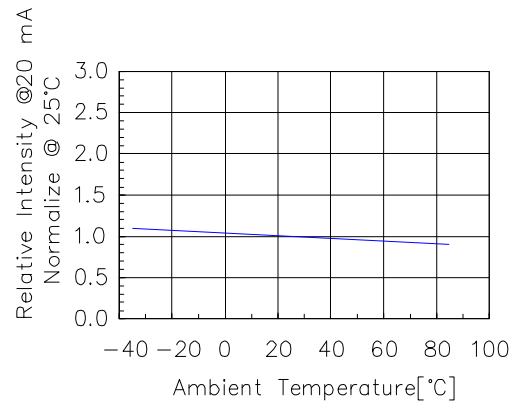


Fig 4. Relative Intensity vs. Temperature

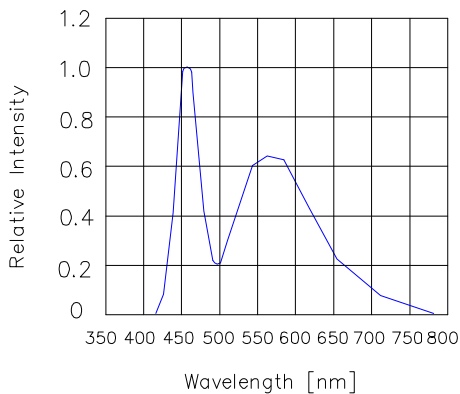


Fig 5. Relative Intensity vs. Wavelength

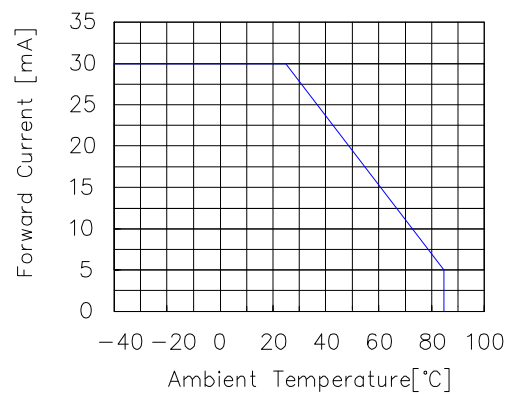


Fig 6. Forward current vs. Temperature

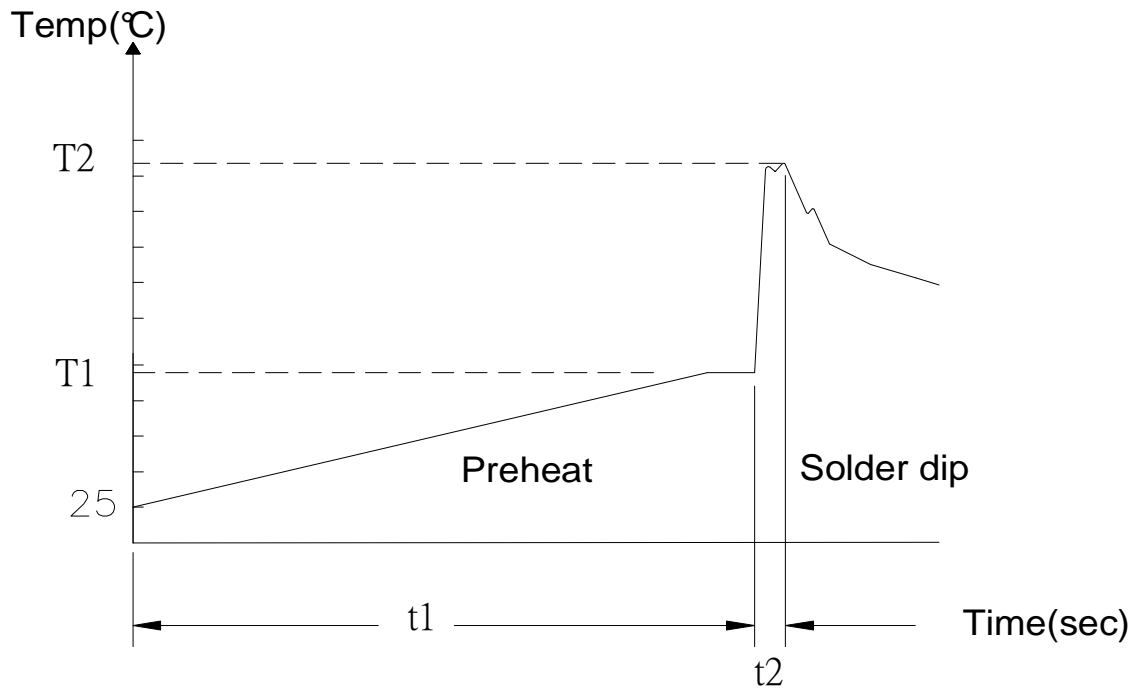
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■ Precautions For Use -

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)