

PRODUCT SPECIFICATION

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

Descriptions:

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



CUSTOMER APPROVED	APPROVED BY	CHECKED BY	PREPARED BY
SIGNATURES			

OPTO PLUS TECHNOLOGIES CO.,LTD
 Address:No.696,Yangming North Rd,
 ShaoXing City,ZheJiang Province, P.R.China.
 Tel :86-575-88623888
 Fax:86-575-88623112

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

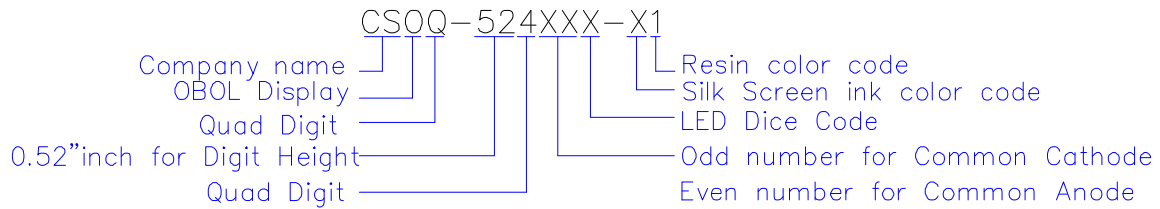
Features -

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.

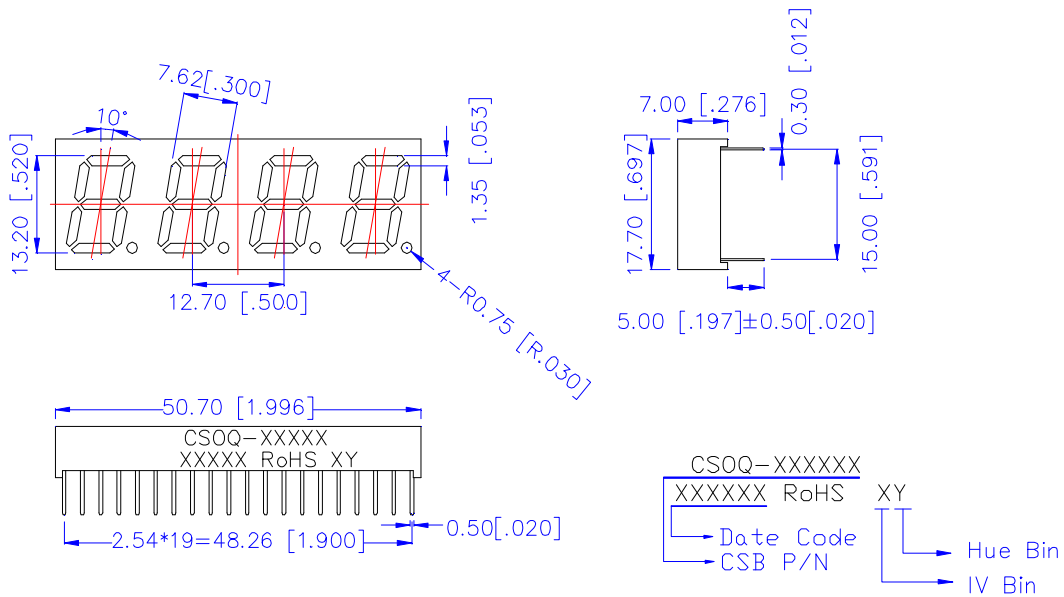
Device Selection Guide -

Model No.	Chip	
	Material	Emitting Color
CSOQ-5240xB	InGaN	Blue

LED Numeric/Alphanumeric Display



Mechanical Dimensions -

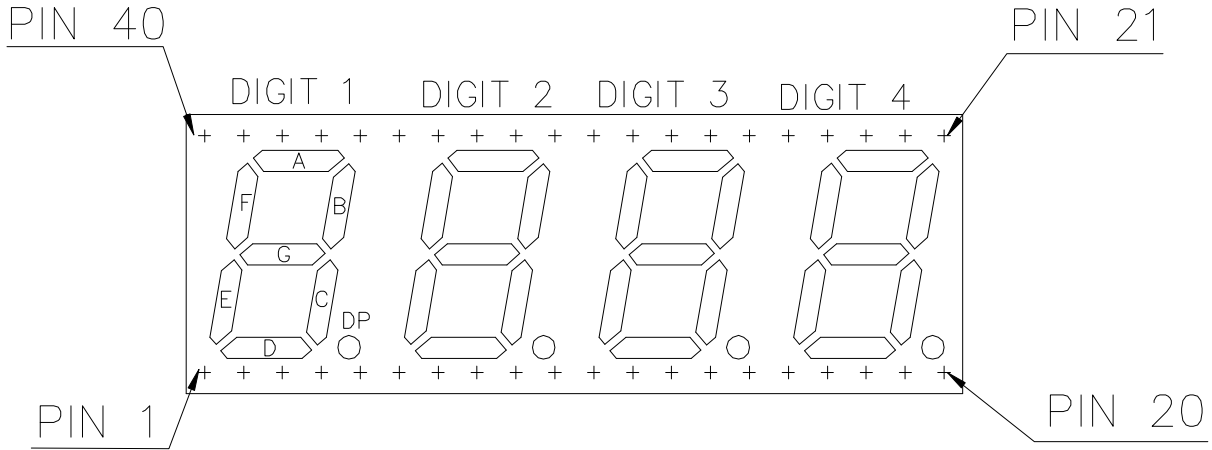


Notes:

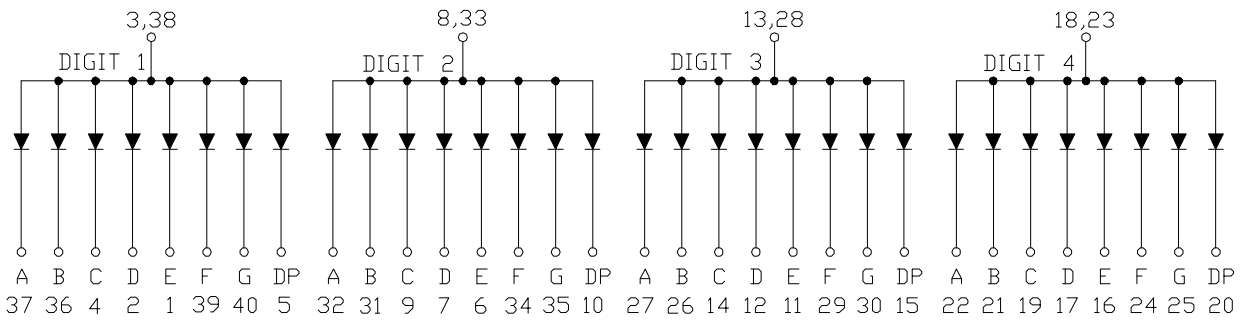
1. All pins are 0.3*0.50
2. Dimension in millimeter [inch], tolerance is ±0.25 [.010] and angle is ±1° unless otherwise noted.
3. Bending ≤ Length*1%.

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

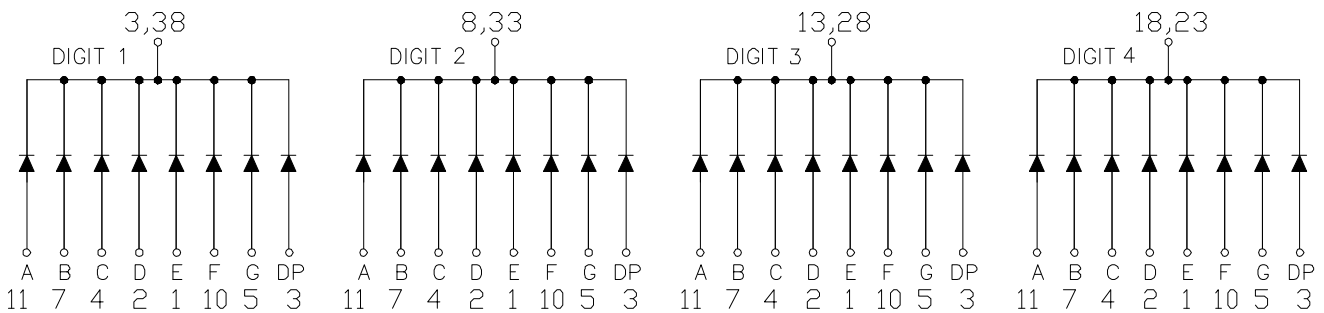
■ All Light On Segments Feature & Pin Position



■ Internal Circuit Diagrams -



CSOQ-52400 is Common Anode



CSOQ-52401 is Common Cathode

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

■ 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	mW/°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.	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	Min.	Typ.	Max.	Unit	Condition
Forward Voltage Per Segment	V_F	-	3.2	3.8	V	I _F =20mA
Luminous Intensity Per Segment	I_v	-	20	-	mcd	I _F =10mA
Dominant Wavelength	λ_d	-	465	-	nm	I _F =20mA
Reverse Current	I_R	-	-	50	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.

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

■ Typical Electrical / Optical Characteristics Curves -

(Ta = 25°C Unless Otherwise Noted)

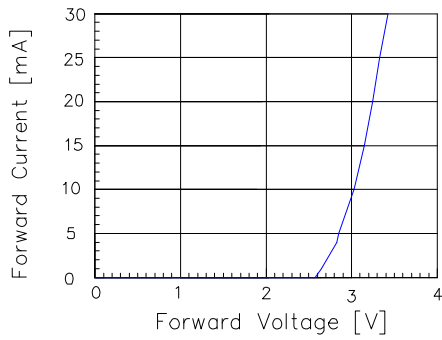


Fig 1. Forward Current vs. Forward Voltage

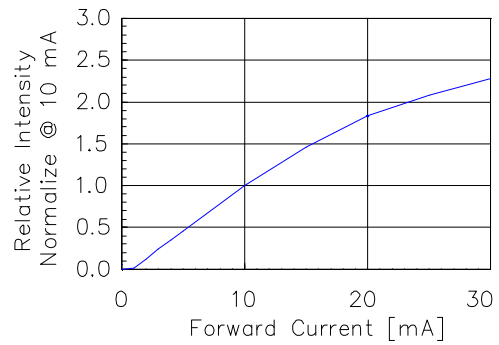


Fig 2. Relative Intensity vs. Forward Current

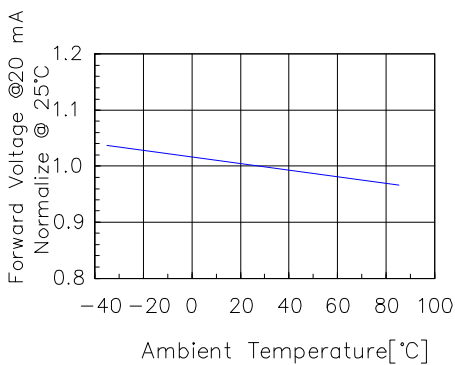


Fig 3. Forward Voltage vs. Temperature

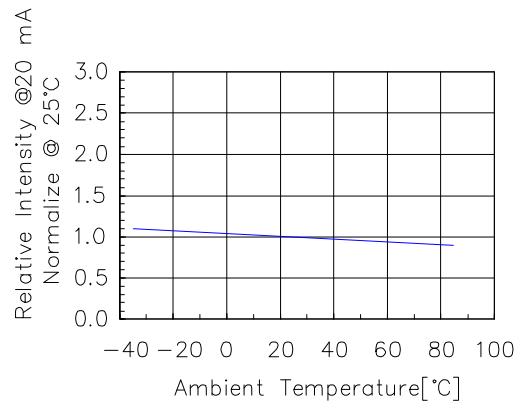


Fig 4. Relative Intensity vs. Temperature

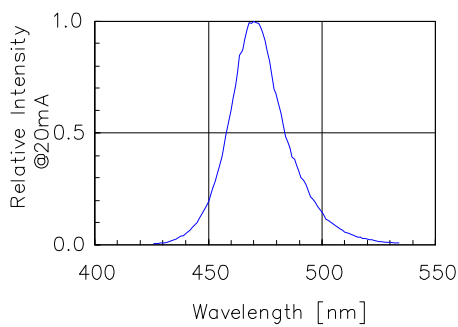


Fig 5. Relative Intensity vs. Wavelength

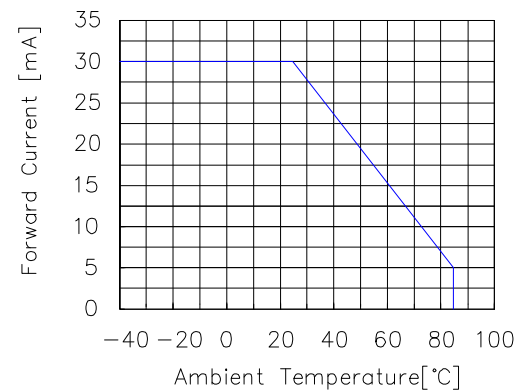


Fig 6. Forward current vs. Temperature

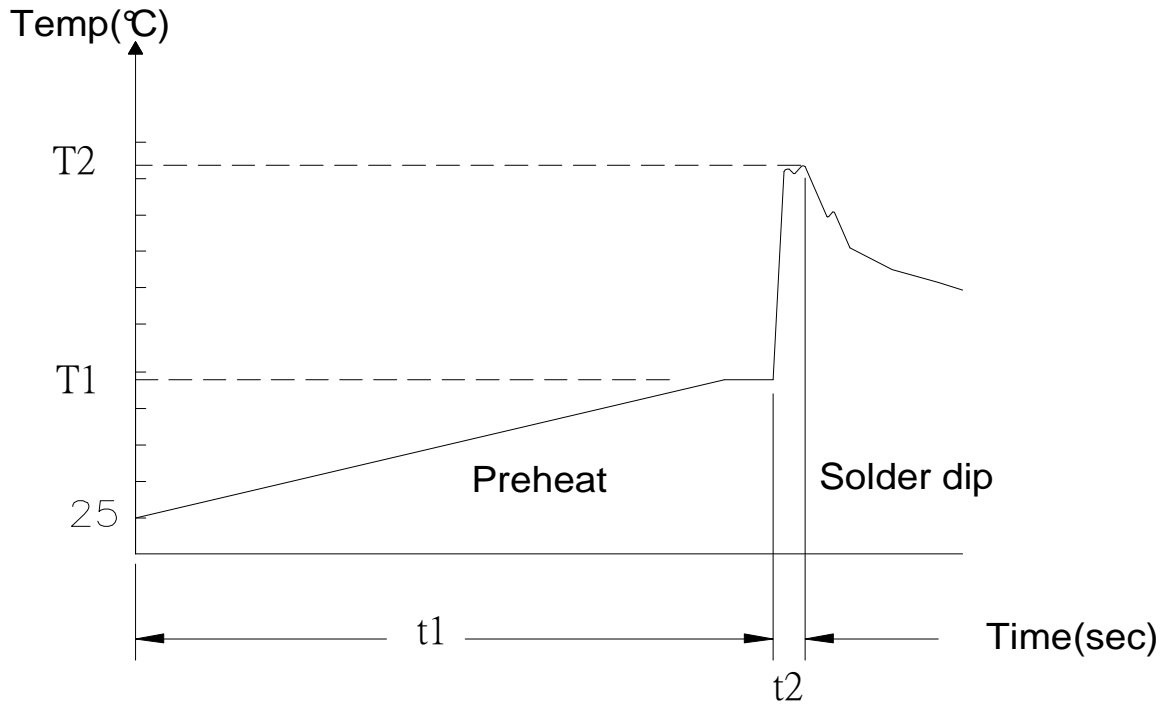
Model No.: CSOQ-52400B CSOQ-52401B

■ 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)