

Model No.: CSOE-15152X-01

Description:

■ Product Type	:	Touch Display with drive IC
■ Icon Size	:	15.0*15.0mm
■ Emitting Color	:	Blue ; White
■ Feature	:	White face With Touch PCB White Segment



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

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■ Features -

1. Case mold type.
2. RoHS compliant.
3. Low power consumption.
4. Easy mounting on P.C. board or socket.

■ Device Selection Guide -

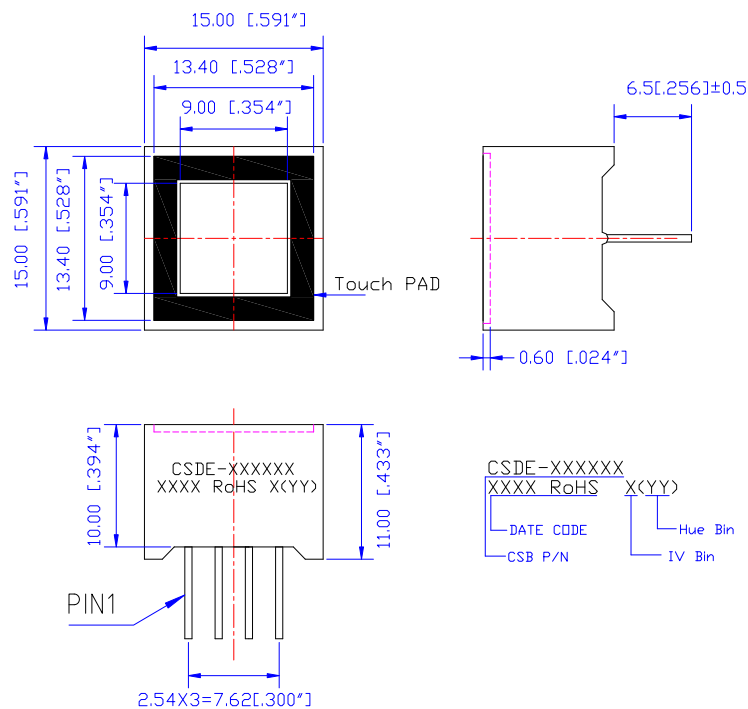
Model No.	Chip Material	Color	
		Emitter	Segment Resin
CSOE-15152B-01	InGaN	Blue	White
CSOE-15152W-01		White	

■ LED Numeric/Alphanumeric Display

CSOE - 15152X - 01

Model No. code _____ Resin color code _____
 Dice color code _____ Silk Screen ink color code _____

■ Mechanical Dimensions -

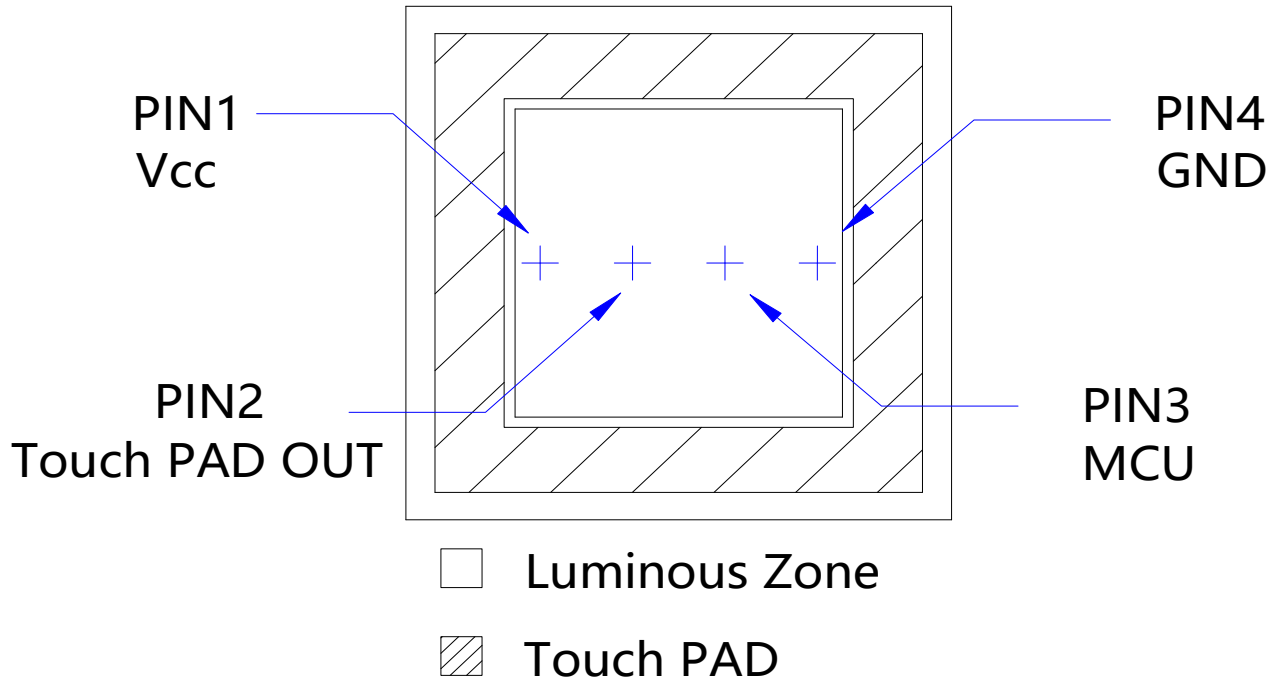


Notes:

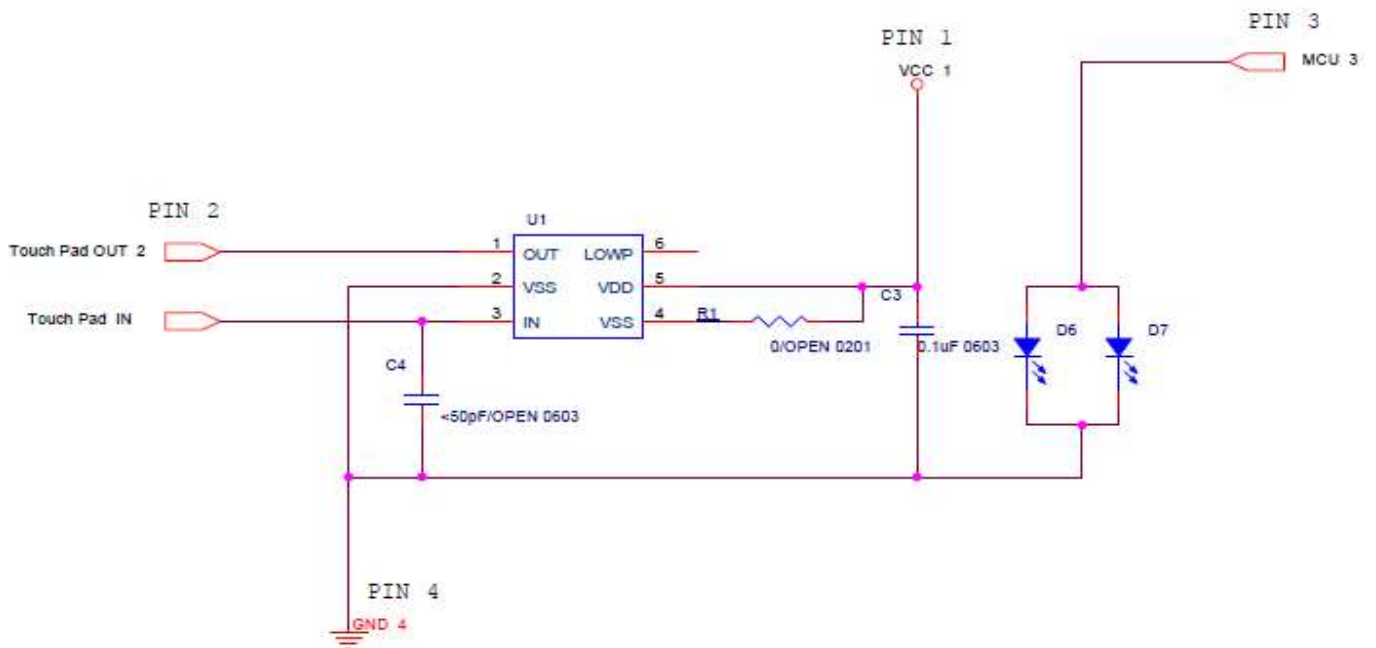
1. All pins are $\Phi 0.6 [0.024] \pm 0.1 [0.004]$
2. Dimension in millimeter [inch], tolerance is $\pm 0.25 [0.010]$ unless otherwise noted.

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■ All Light On Segments Feature



■ Internal Circuit Diagrams -



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■ Absolute Maximum Rating -

(Ta=25°C)

Parameter	Symbol	Rating	Unit
		B/W	
Power Dissipation Per Dice	P_d	114	mW
Continuous Forward Current (Per Dice)	I_f	30	mA
Peak Current (Per Dice, duty cycle 1/10, 1KHz)	I_{fp}	100	mA
Derating Liner from 25°C (Per Dice)	$\Delta I_f / \Delta T$	0.42	mA / °C
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 -

Blue							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage	V_f	-	3.2	3.8	V	$I_f=20mA$	
Luminous Intensity	I_v	44	92	-	mcd	$I_f=20mA$	
Dominant Wavelength	λ_d	-	470	-	nm	$I_f=20mA$	
Spectrum Radiation Bandwidth	$\Delta \lambda$	-	30	-	nm	$I_f=20mA$	
Reverse Current	I_r	-	-	50	μA	$V_r=5V$	
Luminous Intensity Matching Ratio	I_v-m	-	-	2:1	-	$I_f=10mA$	

White							(Ta=25°C)
Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition	
Forward Voltage (Per Dice)	V_f	-	3.2	3.8	V	$I_f=20mA$	
Luminous Intensity (Per Segment)	I_v	113	232	-	mcd	$I_f=20mA$	
Chromaticity Coordinates (Tolerance: ±0.01)	x	-	0.27	-	-	$I_f=20mA$	
	y	-	0.25	-	-		
Reverse Current	I_r	-	-	50	μA	$V_r=5V$	
Luminous Intensity Matching Ratio	I_v-m	-	-	2:1	-	$I_f=10mA$	

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■ Electrical / Optical Characteristics Curves -Per Dice

●Blue (B)

(Ta = 25°C Unless Otherwise Noted)

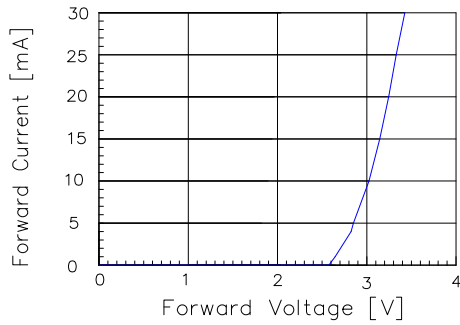


Fig 1. Forward Current vs. Forward Voltage

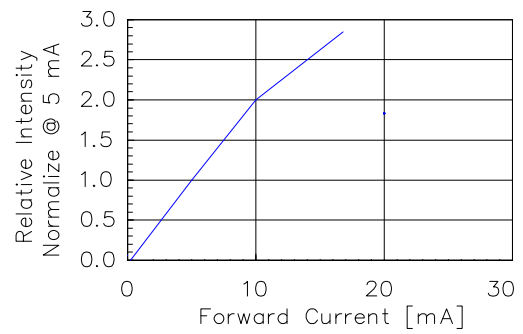


Fig 2. Relative Intensity vs. Forward Current

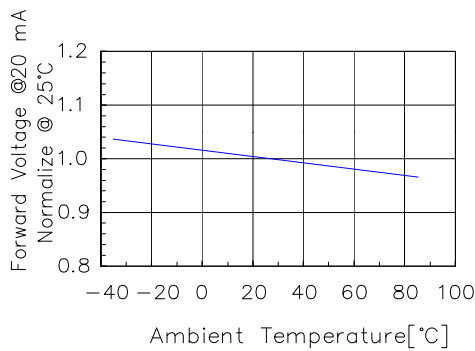


Fig 3. Forward Voltage vs. Temperature

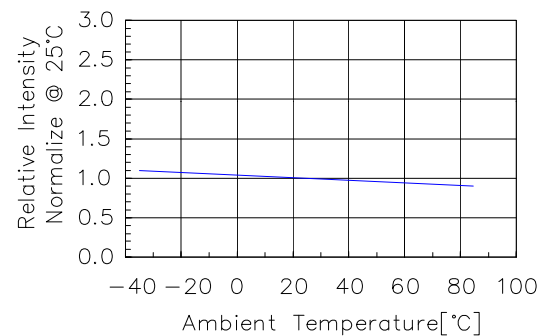


Fig 4. Relative Intensity vs. Temperature

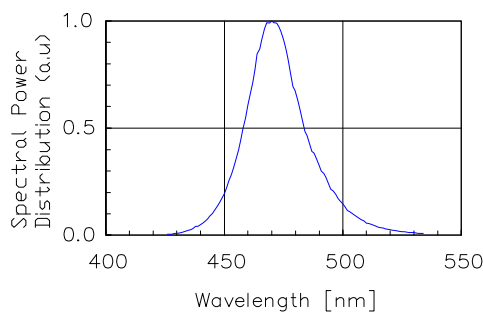


Fig 5. Spectral Power Distribution vs. Wavelength

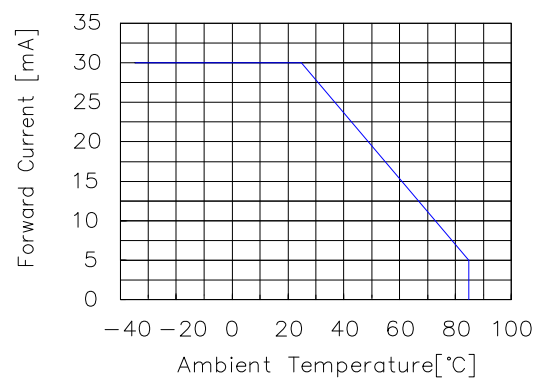


Fig 6. Forward current vs. Temperature

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Electrical / Optical Characteristics Curves -Per Dice

White (W)

(Ta = 25°C Unless Otherwise Noted)

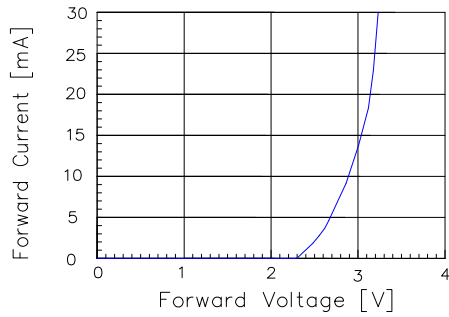


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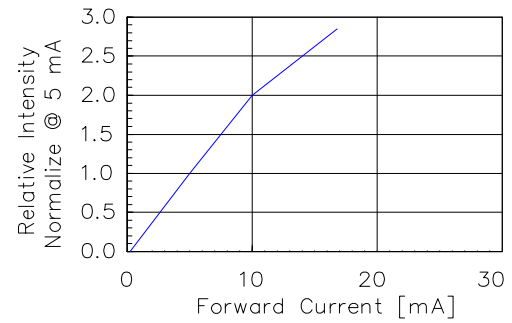


Fig 2. Relative Intensity vs. Forward Current

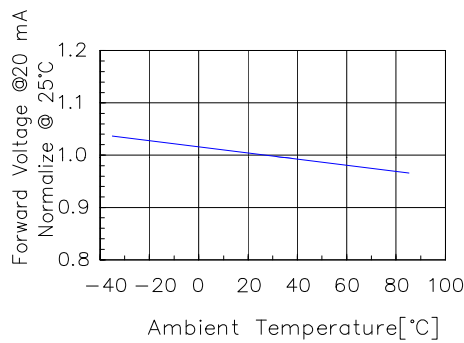


Fig 3. Forward Voltage vs. Temperature

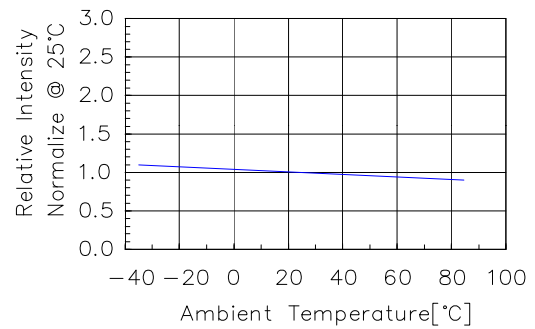


Fig 4. Relative Intensity vs. Temperature

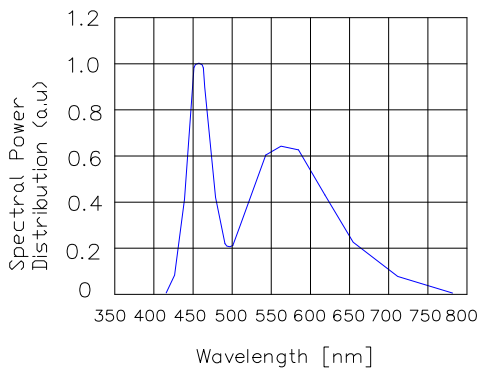


Fig 5. Spectral Power Distribution vs. Wavelength

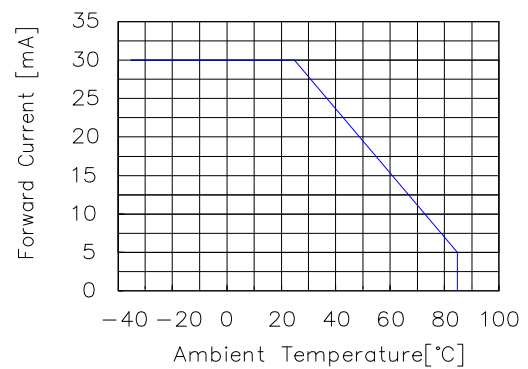


Fig 6. Forward current vs. Temperature

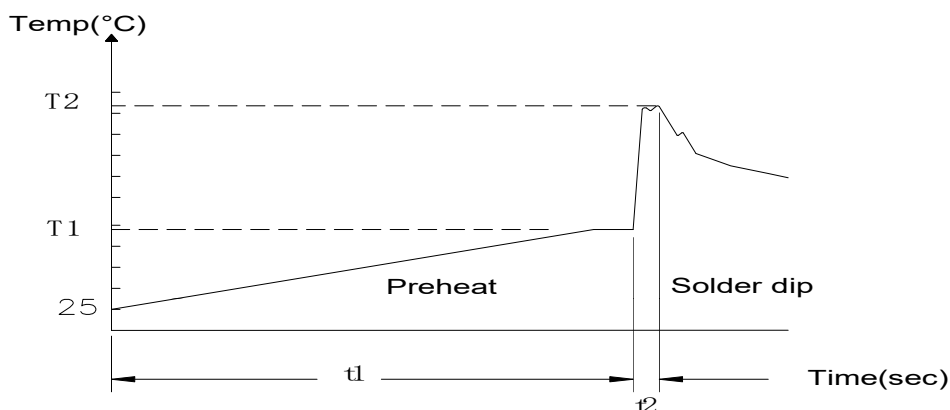
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■ Soldering Characteristics -

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)