

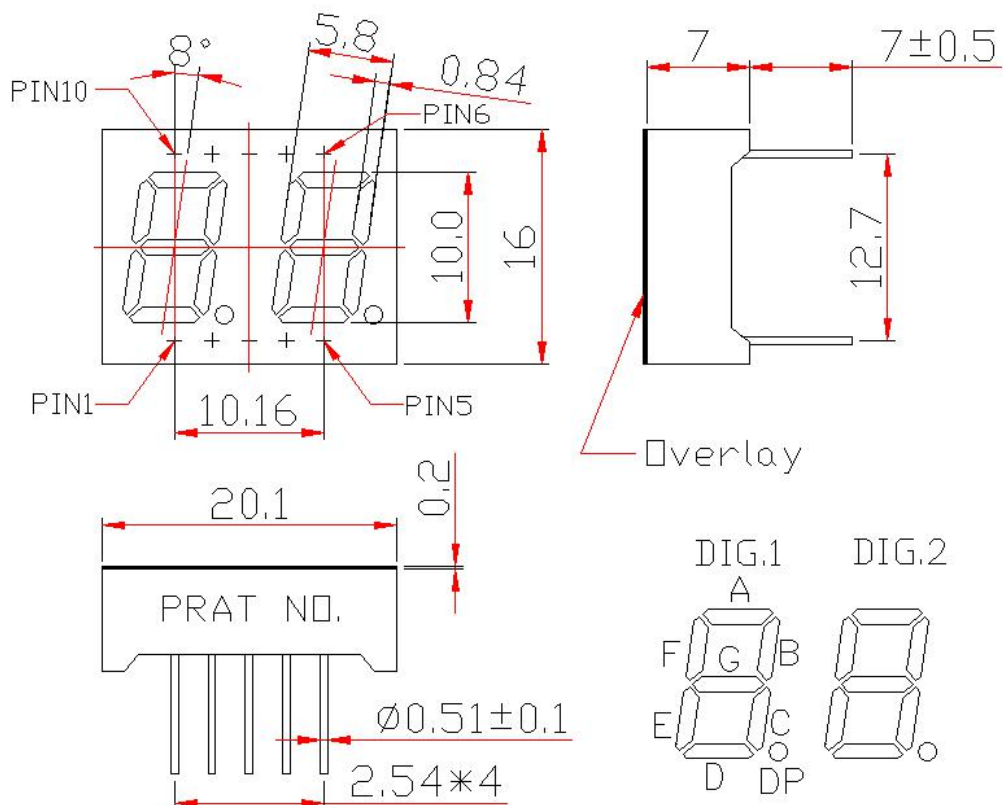
WCN2-0440WW-C11-F-7

SPECIFICATION

WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Zhang 2021-3-23	Athena	William	
REVISION RECORD			

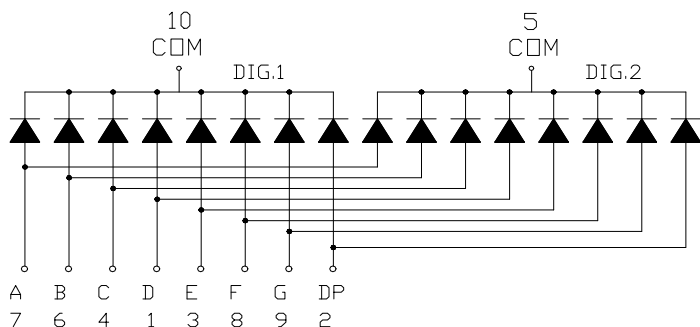
**REVISION: A0**

Outer Dimension:



Notes: Unless otherwise stated, the tolerance is $\pm 0.25\text{mm}$.

Circuit Diagram:



Overlay:



Pin Connection:

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Anode D	6	Anode B
2	Anode DP	7	Anode A
3	Anode E	8	Anode F
4	Anode C	9	Anode G
5	Common Cathode Dig.2	10	Common Cathode Dig.1

■ Features:

- High Reliability
- Color: White
- Low Power Requirement
- Easy Assembly

■ Description:

- Dual Digit Display
- Digit Height:10 mm (0.4")
- Black Face and Yellow Segment with Black Overlay

■ Absolute Maximum Rating (Ta=25°C):

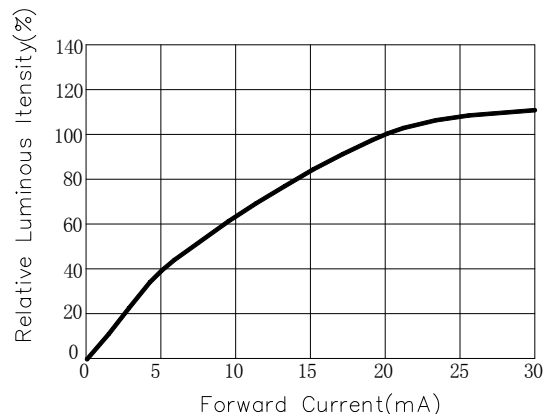
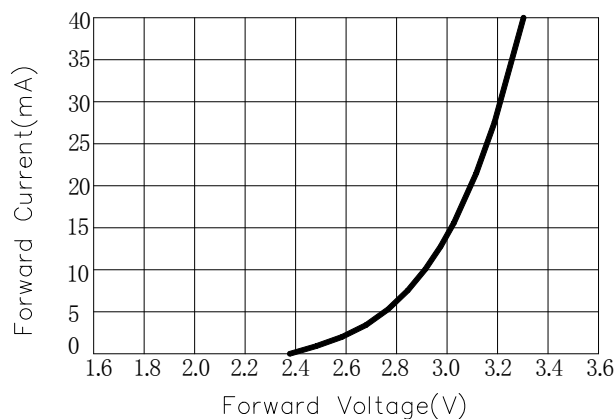
Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	P _d	—	White	90	mW
Forward Current Per Segment	I _F	—	White	25	mA
Peak Forward Current Per Segment	I _{FP}	1/10 Duty 10KHz	White	100	mA
Reverse Voltage Per Segment	V _R	—	White	5	V
Operating Temperature Range	T _{opr}	—	—	-35~+85	°C
Storage Temperature Range	T _{stg}	—	—	-35~+85	°C

■ Electrical/Optical Characteristics Rating(Ta=25°C)

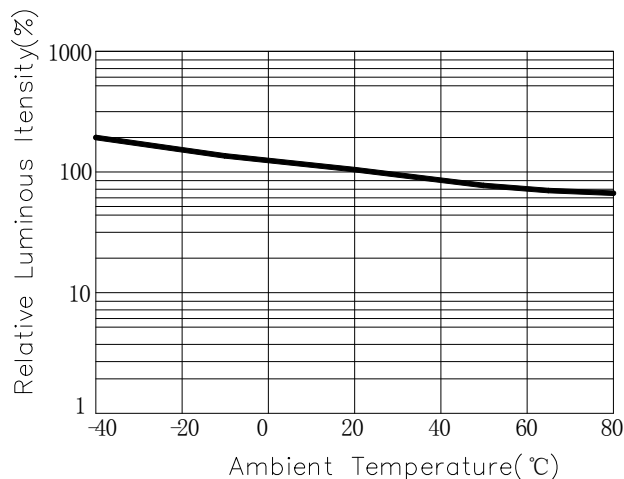
Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	V _F	I _F =20mA	Per Segment	2.6	3.2	3.6	V
Reverse Current	I _R	V _R =5V	Per Segment	—	—	100	μA
Luminous Intensity	I _V	I _F =10mA	Per Segment	8501	—	21500	μcd
CIE Coordinate	X	I _F =20mA	Per Segment	—	0.25	—	nm
	Y			—	0.22	—	
Spectral Line Half Width	△λ	I _F =20mA	Per Segment	—	20	—	nm
Luminous Intensity Matching Ratio (Segment to Segment)	I _{v-m}	I _F =10mA	—	—	—	1.2:1	

■ Soldering Conditions: Soldering Temp. ≤+260°C, Soldering Time. ≤3sec.
(at 2mm Distance from The Case of Reflector Edge)

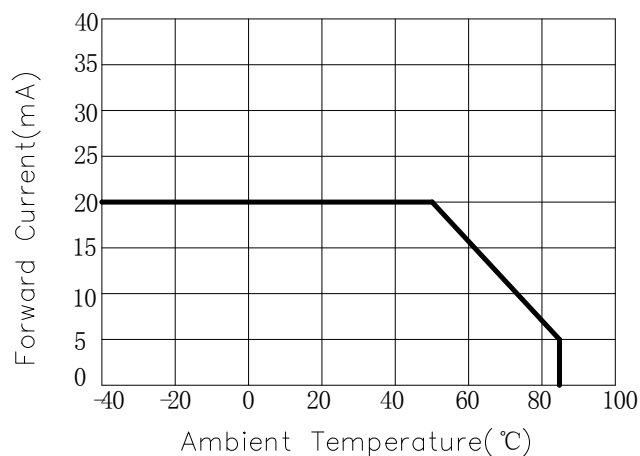
■ Typical Elector-Optical Characteristics Curve:



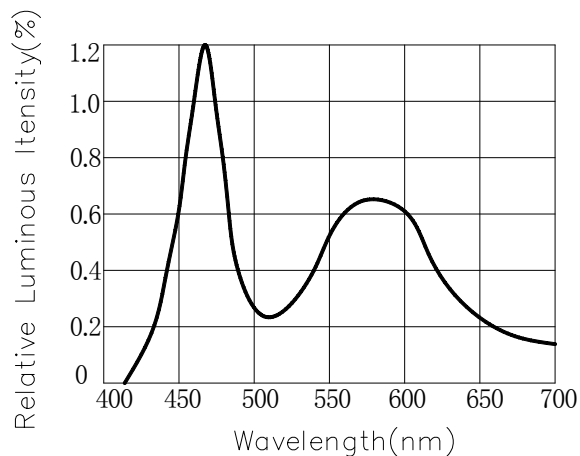
Relative Flux VS Ambient Temperature



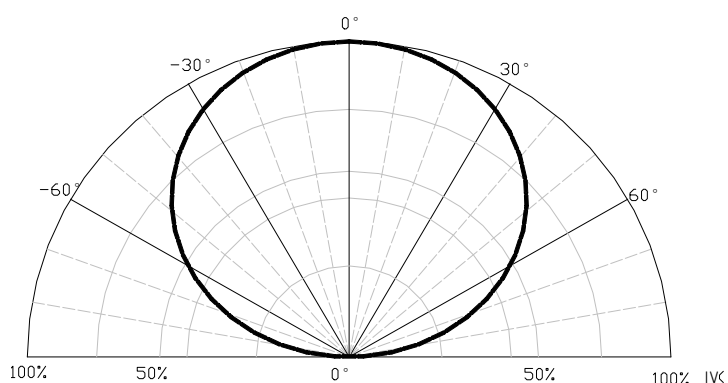
Forward Current VS Ambient Temperature



Relative Spectral Distribution



Typical Spectral Distribution



LED Displays Reliability Test:

CLASSIFICATION	TEST ITEM	DESCRIPTION AND TEST CONDITION
ENDURANCE TEST	OPERATION LIFE	EVALUATES RESISTANCE OF THE DEVICE WHEN OPERATED AT ELECTRICAL STRESS T_a = UNDER ROOM TEMPERATURE $I_F = I_F \text{ max}$
	HIGH TEMPERATURE HIGH HUMIDITY STORAGE	EVALUATES MOISTURE RESISTANCE OF THE DEVICE WHEN STORED FOR A LONG TERM AT HIGH TEMPERATURE AND HUMIDITY $T_a = 65 \pm 5^\circ\text{C}$ RH=90~95%RH TEST TIME=240 $\pm$ 2Hrs
	HIGH TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN HIGH TEMPERATURE $T_a = 85 \pm 5^\circ\text{C}$ (COB: $T_a = 65 \pm 5^\circ\text{C}$) TEST TIME=1000Hrs(-24Hrs, +72Hrs)
	LOW TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN LOW TEMPERATURE $T_a = -35 \pm 5^\circ\text{C}$ TEST TIME=1000Hrs(-24Hrs, +72Hrs)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	EVALUATES RESISTANCE OF DEVICE AT THERMAL STRESSES OR EXPANSION AND CONTRACTION $85^\circ\text{C} \sim 25^\circ\text{C} \sim -35^\circ\text{C} \sim 25^\circ\text{C}$ 30min 5min 30min 5min 10 CYCLES(COB: $T_{\text{hot}}=65^\circ\text{C}$, $T_{\text{cold}}=-25^\circ\text{C}$)
	THERMAL SHOCK	EVALUATES DEVICE STRUCTURE AND STRUCTURE AND MECHANICAL RESISTANCE WHEN SUDDENLY EXPOSED AT SERVE CHANGES $85 \pm 5^\circ\text{C} \sim -35 \pm 5^\circ\text{C}$ 10min 10min 10 CYCLES(COB: $T_{\text{hot}}=65^\circ\text{C}$, $T_{\text{cold}}=-25^\circ\text{C}$)
	SOLDERABILITY	EVALUATES SOLDERABILITY ON LEADS OF DEVICE $T_{\text{SOL}}=230 \pm 5^\circ\text{C}$ DWELL TIME=5 $\pm$ 1sec.
	SOLDER RESISTANCE	EVALUATES RESISTANCE TO THERMAL STRESS CAUSED BY SOLDERING $T_{\text{SOL}}=260 \pm 5^\circ\text{C}$ DWELL TIME=10 $\pm$ 1sec.

Packing method :

144 pcs / Red Expandable Polyethylene.

864 pcs / Box(360*175*130mm).

518 pcs / Carton(550*380*280mm).