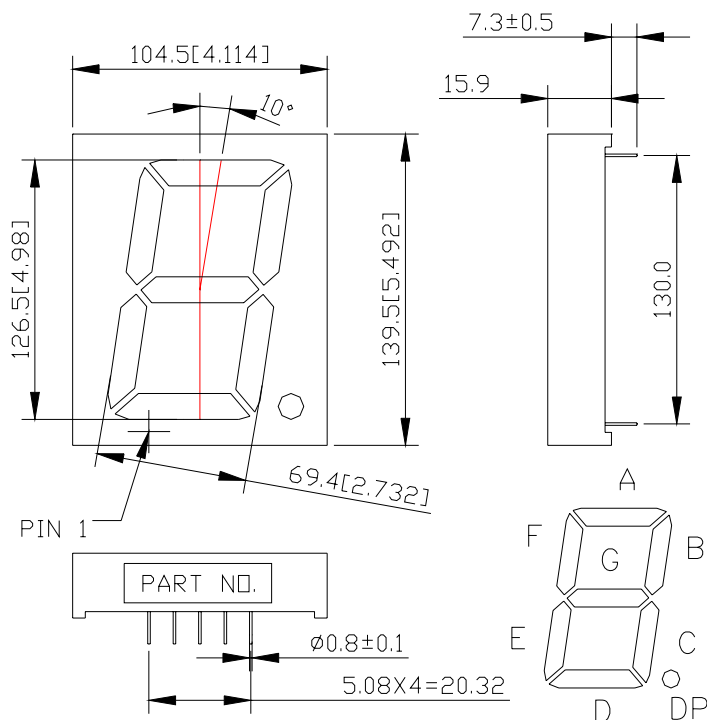


WCN1-00E0G6-C11S**SPECIFICATION**

WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Fei	Athena		
REVISION RECORD			

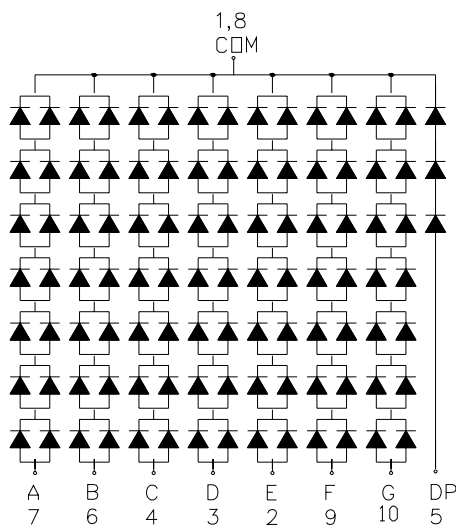
**REVISION: A0**

Outer Dimension:



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

Circuit Diagram:



Pin Connection:

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

WCN Opto Group Co., Limited

■ Features:

- High Reliability
- Color: Yellow Green
- Low Power Requirement
- Easy Assembly

■ Description:

- Single Digit LED Display
- Digit Height: 126.5mm (4.98")
- Black Face and Milky Segment

■ Absolute Maximum Rating (Ta=25℃):

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment/DP	P _d	—	Yellow Green	700/150	mW
Forward Current Per Segment/DP	I _F	—	Yellow Green	40/20	mA
Peak Forward Current Per Segment	I _{FP}	1/10 Duty 1KHz	Yellow Green	100	mA
Reverse Voltage Per Segment/DP	V _R	—	Yellow Green	35/15	V
Operating Temperature Range	T _{opr}	—	—	-35~+85	℃
Storage Temperature Range	T _{stg}	—	—	-35~+85	℃

■ Electrical/Optical Characteristics Rating(Ta=25℃)

Item	Symbol	Test conditions	Location	Rating			Units
				Min.	Typ.	Max.	
Forward Voltage	V _F	I _F =40mA	Per Segment	—	15.75	16.80	V
		I _F =20mA	DP	—	6.75	7.20	V
Reverse Current	I _R	V _R =15V/5V	Per Segment/DP	—	—	100	μA
Luminous Intensity	I _V	I _F =20mA	Per Segment	10501	16600	26000	μcd
Wave Length	λ _P	I _F =40mA	Per Segment	—	568	—	nm
	λ _D				571		
Spectral Line Half Width	△λ	I _F =40mA	Per Segment	—	20	—	nm
Luminous Intensity Matching Ratio (Segment To Segment)	I _{v-m}	I _F =10mA				1.2:1	

■ Luminous Intensity Sorting: (Luminous Intensity Tolerance is +/-10%)

Rank	Symbol	Condition	Min	Max	Unit
Q	Q	I _F =10mA	10501	12800	μcd
R	R	I _F =10mA	12801	15250	μcd
S	S	I _F =10mA	15251	18000	μcd
T	T	I _F =10mA	18001	21500	μcd
U	U	I _F =10mA	21501	26000	μcd

■ Hue Grade: I_F =10mA (Hue: +/-1nm)

Rank	Symbol	Hue Range	Units
3	3	569.1~571.0	nm
4	4	571.1~573.0	nm

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

■ Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

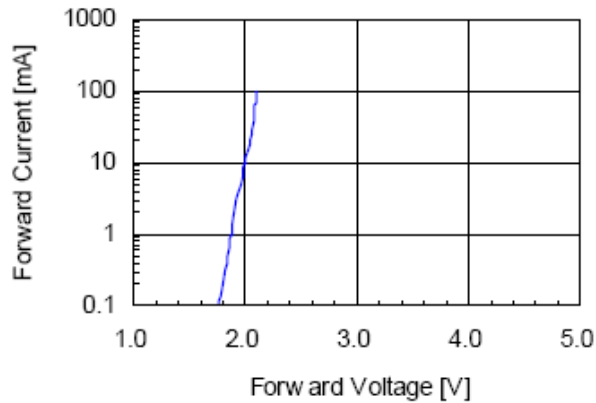


Fig 2. Relative Intensity vs. Forward Current

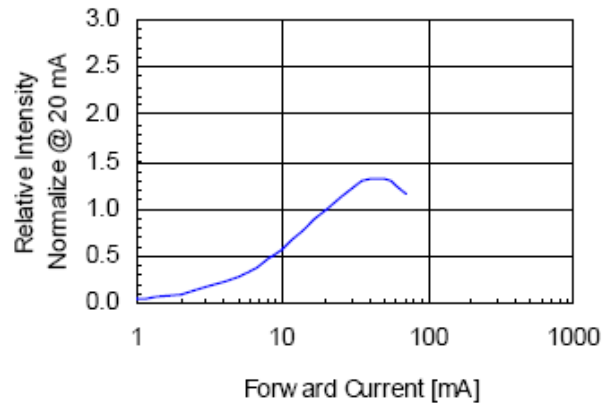


Fig 3. Forward Voltage vs. Temperature

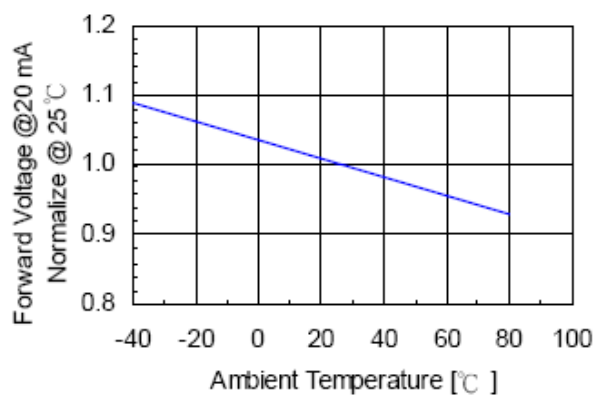


Fig 4. Relative Intensity vs. Temperature

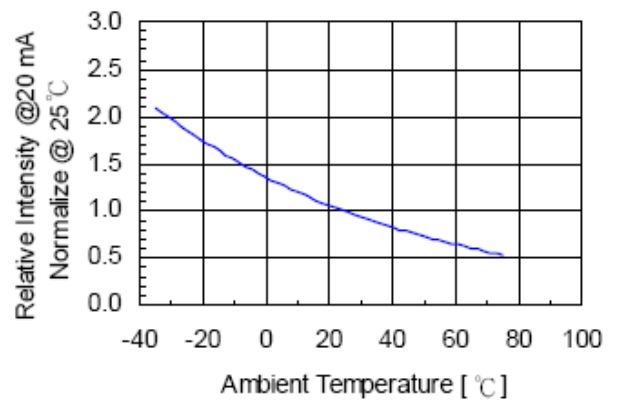
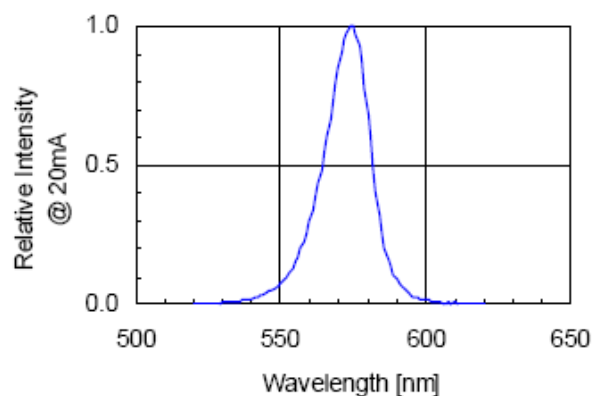


Fig 5. Relative Intensity vs. Wavelength



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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 $I_F = I_{F \max}$
	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.

Package method 1:

4 pcs / Red Expandable Polyethylene.

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

64 pcs / Catton(550*380*280mm).