

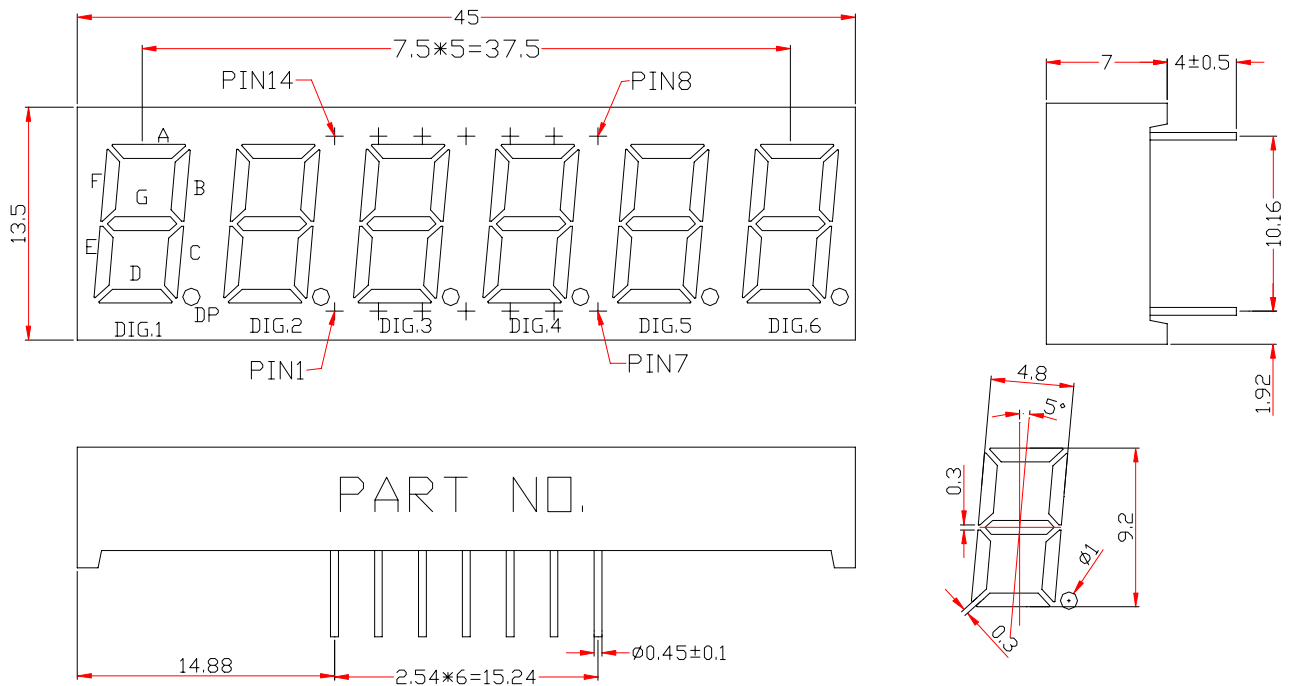
WCN6-0036PG-C11

SPECIFICATION

WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Fei 2016-12-03	Athena	William	
REVISION RECORD			
A2: New Version issued (2016-12-03)			

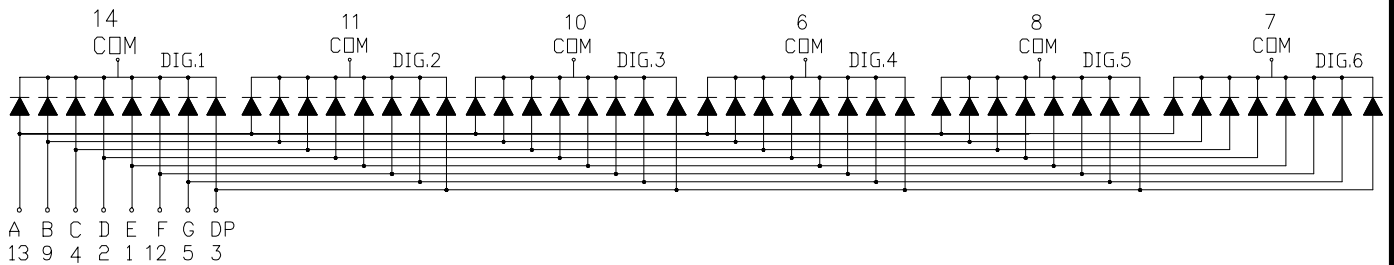
**REVISION: A2**

Outer Dimension:



Notes: Unless otherwise stated, The tolerance is ± 0.25 mm.

Circuit Diagram



Pin Connection:

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Anode E	8	Common Cathode DIG.5
2	Anode D	9	Anode B
3	Anode DP	10	Common Cathode DIG.3
4	Anode C	11	Common Cathode DIG.2
5	Anode G	12	Anode F
6	Common Cathode DIG.4	13	Anode A
7	Common Cathode DIG.6	14	Common Cathode DIG.1

■ **Features:**

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

■ **Description:**

- Six Digit LED Display
- Digit Height: 9.2mm(0.36")
- Black Face and Milky Segment

■ **Absolute Maximum Rating (Ta=25°C):**

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment	P _d	—	Pure Green	90	mW
Forward Current Per Segment	I _F	—	Pure Green	25	mA
Peak Forward Current Per Segment	I _{FP}	1/10 Duty 10KHz	Pure Green	100	mA
Reverse Voltage Per Segment	V _R	—	Pure Green	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	—	3.0	3.60	V
Reverse Current	I _R	V _R =5V	Per Segment	—	—	100	μA
Luminous Intensity	I _V	I _F =10mA	Per Segment	58001	73500	91000	μcd
Peak Emission Wave Length	λ _P	I _F =20mA	Per Segment	—	—	—	nm
	λ _D				522.5		
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	

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

Rank	Symbol	Condition	Min	Max	Unit
Z1	Z1	I _F =10mA	58001	68000	μcd
Z2	Z2	I _F =10mA	68001	78500	μcd
Z3	Z3	I _F =10mA	78501	91000	μcd

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

■ Typical Elector-Optical Characteristics Curve:

Fig.1-Relative Luminous Intensity vs. Forward Current

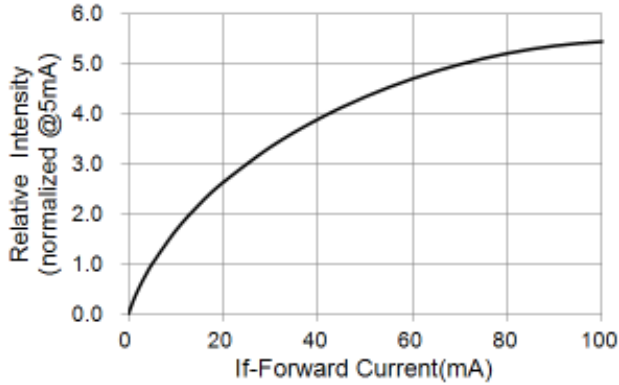


Fig.2-Forward Current vs. Forward Voltage

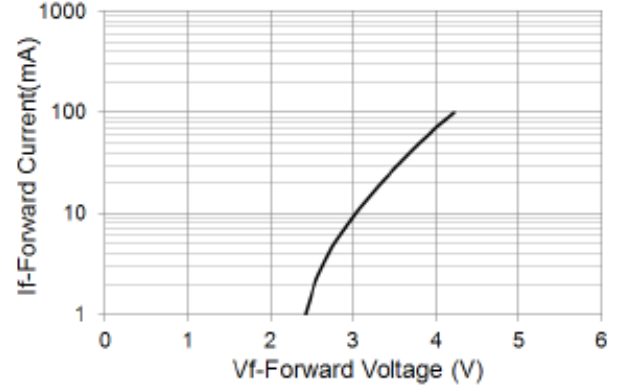


Fig.3-Relative Intensity(@5mA) vs. Ambient Temperature

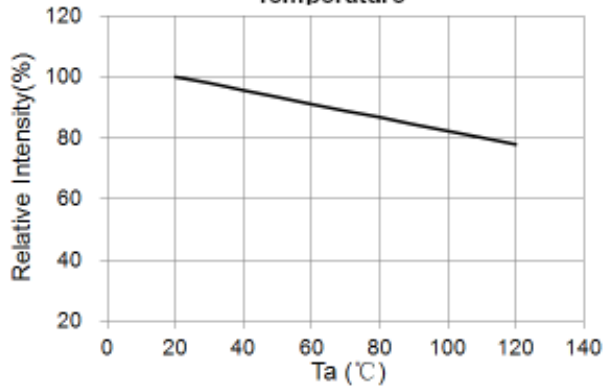


Fig.4- Forward Voltage (@5mA) vs. Ambient Temperature

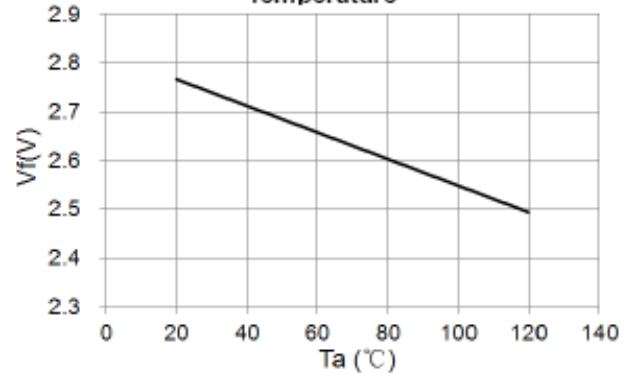


Fig.5- Dominant Wavelength (@5mA) vs. Ambient Temperature

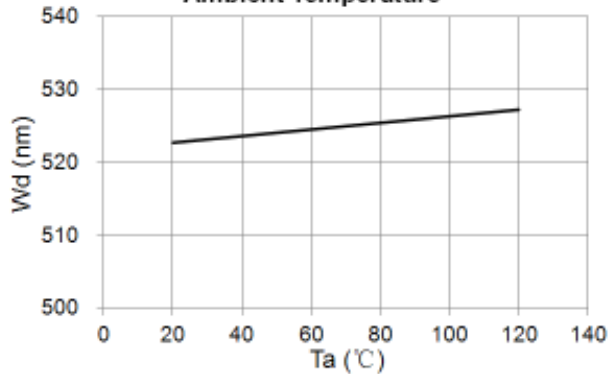
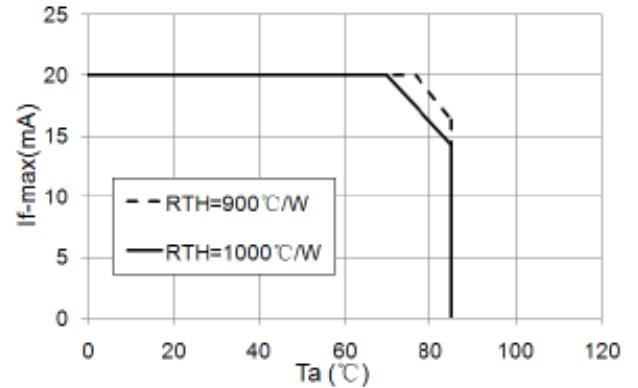


Fig.6-Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on Ti max=125°C)



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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±5°C RH=90~95%RH TEST TIME=240± 2Hrs
	HIGH TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN HIGH TEMPERATURE T _a = 85±5°C(COB: T _a =65±5°C) TEST TIME=1000Hrs(-24Hrs, +72Hrs)
	LOW TEMPERATURE STORAGE	EVALUATES DEVICE DURABILITY FOR LONG TERM STORAGE IN LOW TEMPERATURE T _a = -35±5°C TEST TIME=1000Hrs(-24Hrs, +72Hrs)
ENVIRONMENTAL TEST	TEMPERATURE CYCLING	EVALUATES RESISTANCE OF DEVICE AT THERMAL STRESSES OR EXPANSION AND CONTRACTION 85°C ~ 25°C ~ -35°C ~ 25°C 30min 5min 30min 5min 10 CYCLES(COB: T _{hot} =65°C, T _{cold} =-25°C)
	THERMAL SHOCK	EVALUATES DEVICE STRUCTURE AND STRUCTURE AND MECHANICAL RESISTANCE WHEN SUDDENLY EXPOSED AT SERVE CHANGES 85±5°C ~ -35±5°C 10min 10min 10 CYCLES(COB: T _{hot} =65°C, T _{cold} =-25°C)
	SOLDERABILITY	EVALUATES SOLDERABILITY ON LEADS OF DEVICE T.SOL=230±5°C DWELL TIME=5±1sec.
	SOLDER RESISTANCE	EVALUATES RESISTANCE TO THERMAL STRESS CAUSED BY SOLDERING T.SOL=260±5°C DWELL TIME=10±1sec.

■ Packing method A:

77 pcs / Red Expandable Polyethylene.

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

3180 pcs / Carton(550*380*280mm).

■ Packing method B:

11 pcs / IC Tube.(525*17*16)

770 pcs / Box(537*175*125mm).

3080 pcs / Carton(550*380*280mm).