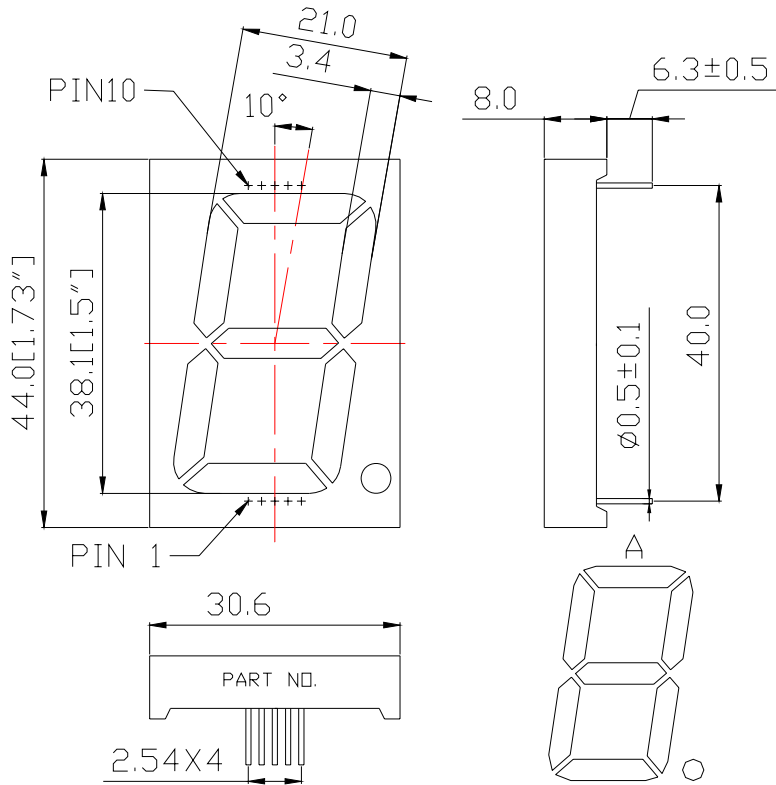


WCN1-00A5B7-A11**SPECIFICATION**

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

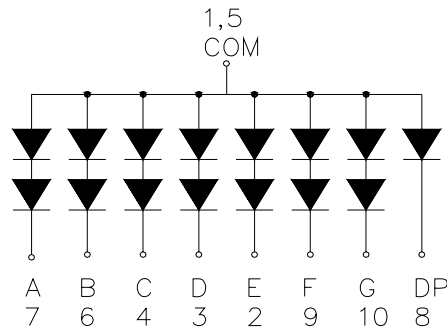
**REVISION: A1**

Outer Dimension:



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

Circuit Diagram:



Pin Connection

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

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Features:

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

Description:

- Single Digit LED Display
- Digit Height:38.1mm(1.5")
- Black Face and Milky Segment

Absolute Maximum Rating (Ta=25)::

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Segment/DP	P_d		Blue	180/90	mW
Forward Current Per Segment	I_F		Blue	25	mA
Peak Forward Current Per Segment	I_{FP}	1/10 Duty 1KHz	Blue	100	mA
Reverse Voltage Per Segment/DP	V_R		Blue	10/5	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	$I_F=20mA$	Per Segment	5.20	6.40	7.20	V
			DP	2.60	3.20	3.60	
Reverse Current	I_R	$V_R=10/5V$	Per Segment/DP			100	A
Luminous Intensity	I_V	$I_F=10mA$	Per Segment	18001	28500	43000	ucd
Wave Length	P	$I_F=20mA$	Per Segment		460		nm
	D			465	470	475	
Spectral Line Half Width		$I_F=20mA$	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
T	T	$I_F=10mA$	18001	21500	cd
U	U	$I_F=10mA$	21501	26000	cd
V	V	$I_F=10mA$	26001	31000	cd
W	W	$I_F=10mA$	31001	37000	cd
X	X	$I_F=10mA$	37001	43000	cd

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

Typical Electro-Optical Characteristics Curve:

Fig1. Forward Current vs. Forward Voltage:

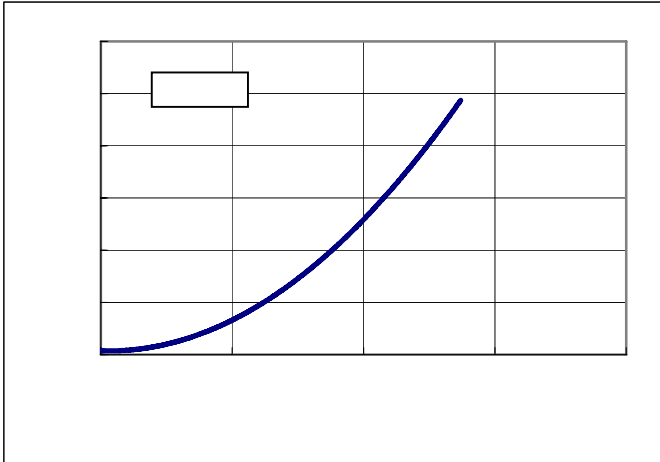


Fig2. Forward Current vs. Relative Intensity:

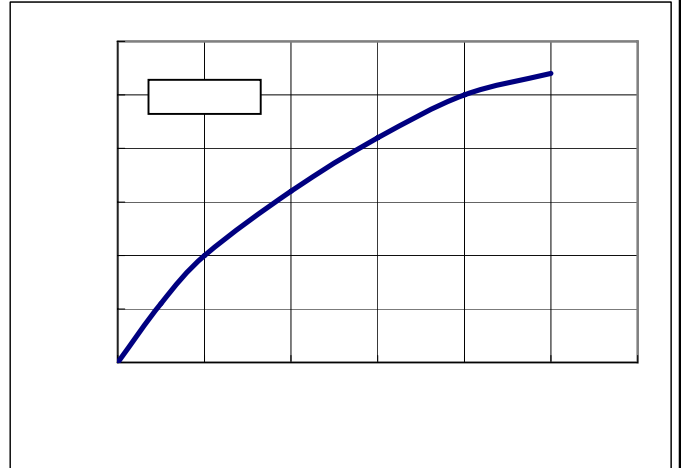


Fig3. Forward Current vs. Relative wavelength:

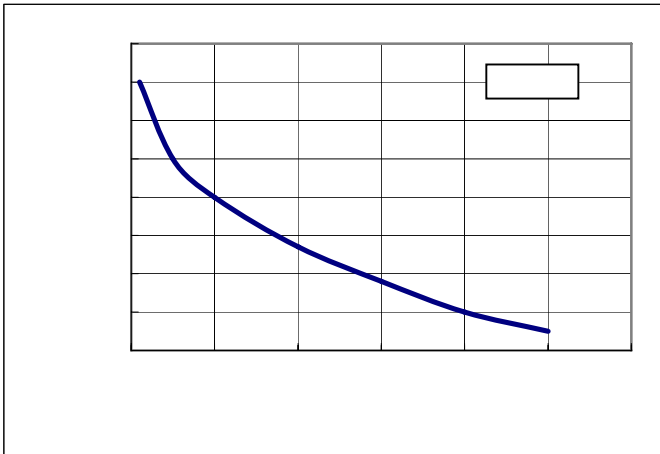
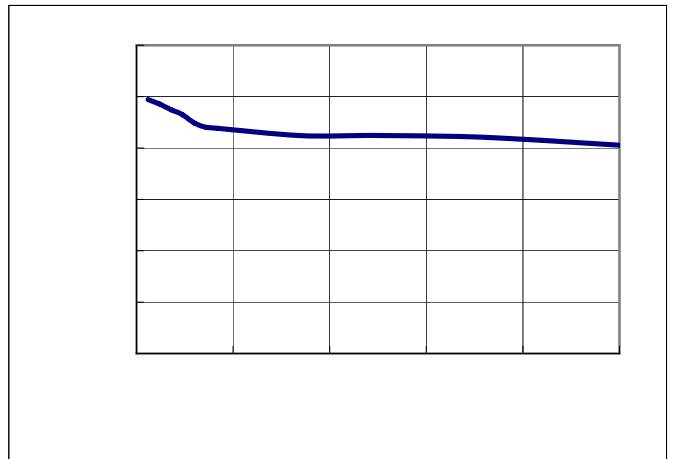


Fig4. Life Test at 20mA R.T. 1000hrs:



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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 $I_F = I_F \text{ max}$
	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± 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±1sec.
	SOLDER RESISTANCE	EVALUATES RESISTANCE TO THERMAL STRESS CAUSED BY SOLDERING $T_{\text{SOL}}=260 \pm 5^\circ\text{C}$ DWELL TIME=10±1sec.

Package method 1:

30 pcs / Red Expandable Polyethylene.

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

1080 pcs / Catton(550*380*280mm).