WCN Opto Group Co., Limited

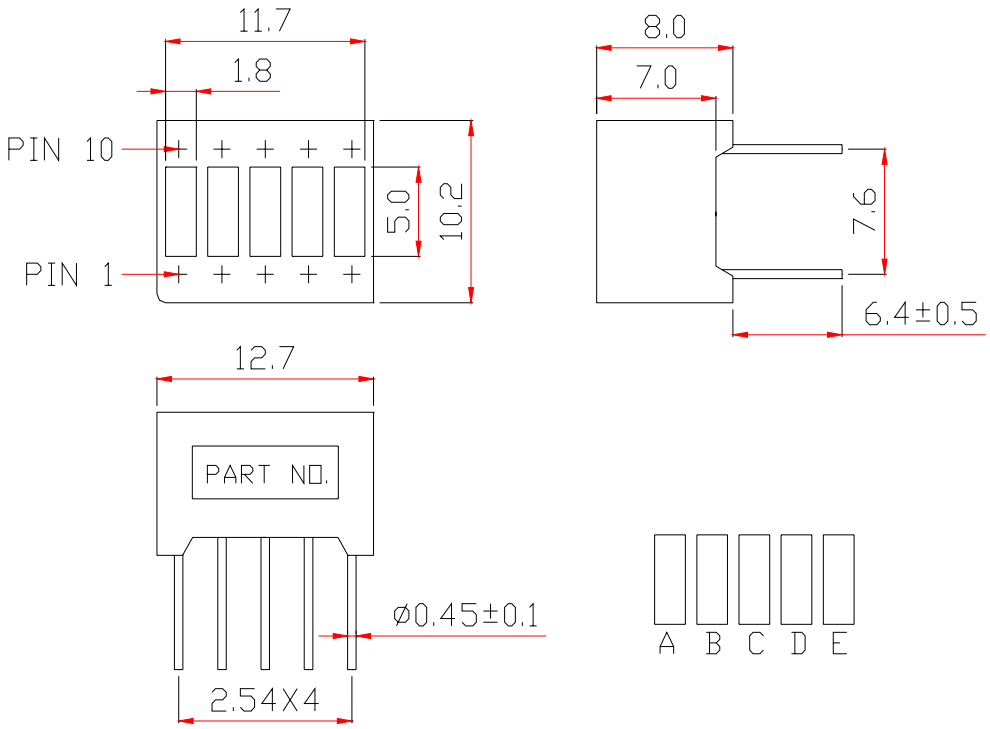
WCNLB5-B711

SPECIFICATION

WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Fei 2016-8-5	Athena	William	
REVISION RECORD			

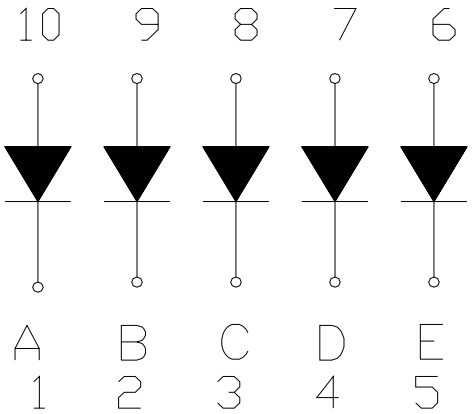
REVISION: A0

■ Outer Dimension:



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

■ Circuit Diagram:



■ Pin Connection:

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

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■ Features:

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

■ Description:

. Five Windows Display
. Digit Height 5.0mm(0.20″) and Width 1.8mm(0.07″)
. Black Face and Milky Bar

■ Absolute Maximum Rating (Ta=25℃):

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Bar	P_d	—	Blue	90	mW
Forward Current Per Bar	I_F	—	Blue	25	mA
Peak Forward Current Per Bar	I_{FP}	1/10 Duty 10KHz	Blue	100	mA
Reverse Voltage Per Bar	V_R	—	Blue	5	V
Operating Temperature Range	Topr	—	—	-35～+85	℃
Storage Temperature Range	Tstg	—	—	-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 Bar	—	3.2	3.60	V
Reverse Current	I_R	V_R=5V	Per Bar	—	—	100	μA
Luminous Intensity	I_V	I_F=10mA	Per Bar	10501	16500	26000	μcd
Wave Length	λ_P	I_F=20mA	Per Bar	—	—	—	nm
	λ_D				470		
Spectral Line Half Width	△λ	I_F=20mA	Per Bar	—	30	—	nm
Luminous Intensity Matching Ratio (Bar to Bar)	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

■ Soldering Conditions: Soldering Temp. ≦+260℃ Soldering Time. ≦3sec.

(at 2mm Distance from The Case of Reflector Edge).

■ Typical Elector-Optical Characteristics Curve:

Fig1. Forward Current vs. Forward Voltage:

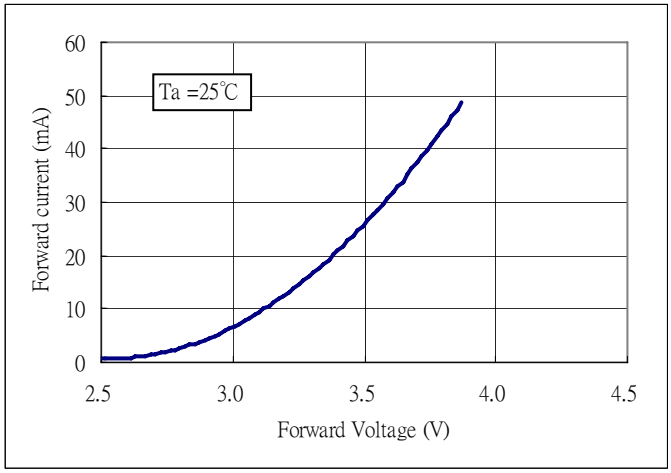


Fig2. Forward Current vs. Relative Intensity:

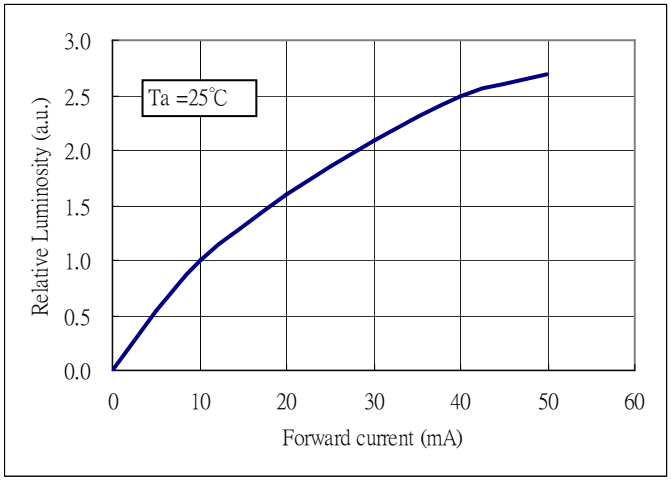


Fig3. Forward Current vs. Relative wavelength:

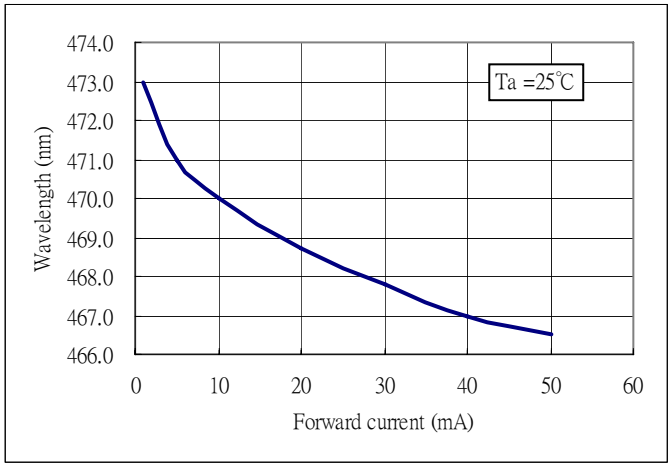
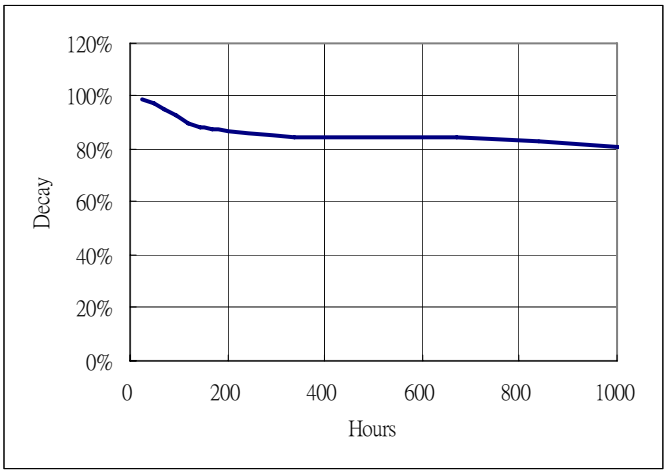


Fig4. Life Test at 20mA R.T. 1000hrs:



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: Ta=65±5°C) TEST TIME=1000Hrs(-24Hrs, +72Hrs)
	IOW 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: Thot=65°C, Tcold=-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: Thot=65°C,Tcold=-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 :

350pcs / Red Expandable Polyethylene.
2100 pcs / Box(360*175*130mm).
12600 pcs / Catton(550*380*280mm).

Packing method B:

40 pcs / IC Tube.(530*14.5*15.5)
3080 pcs / Box(537*175*125mm).
12320pcs / Catton(550*380*280mm).