

WCNLBA-PG12

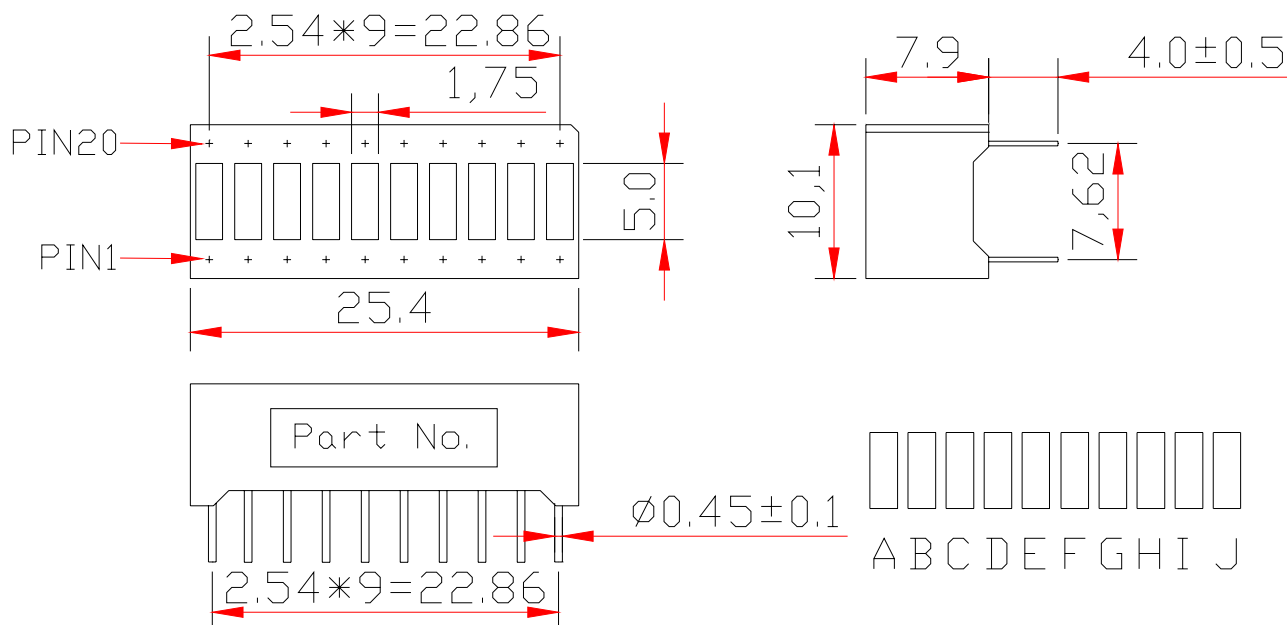
SPECIFICATION

WCN			CUSTOMER Confirmed
Prepared by	Checked by	Approved by	
Fei 2016-7-28	Athena	William	
REVISION RECORD			



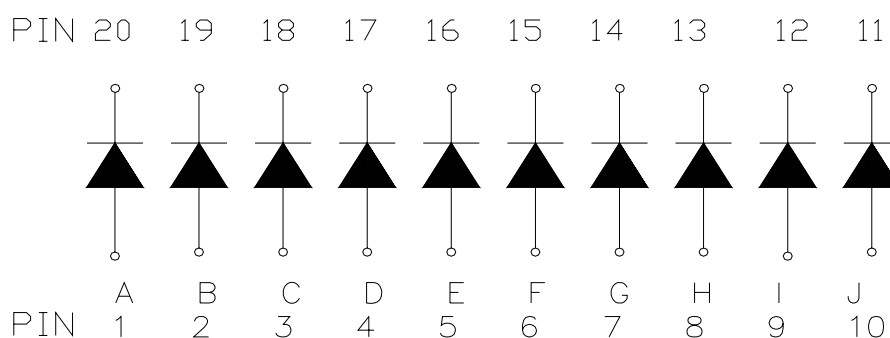
REVISION: A1

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	Anode A	8	Anode H	15	Cathode F
2	Anode B	9	Anode I	16	Cathode E
3	Anode C	10	Anode J	17	Cathode D
4	Anode D	11	Cathode J	18	Cathode C
5	Anode E	12	Cathode I	19	Cathode B
6	Anode F	13	Cathode H	20	Cathode A
7	Anode G	14	Cathode G		

■ Features:

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

■ Description:

- Ten Windows Display
- Digit Height 5.00mm(0.20") and Width 1.75mm(0.07")
- Black Face and Milky Bar

■ Absolute Maximum Rating (Ta=25°C):

Parameter	Symbol	Condition	Color	Rating	Units
Power Dissipation Per Bar	P _d	—	Pure Green	90	mW
Forward Current Per Bar	I _F	—	Pure Green	25	mA
Peak Forward Current Per Bar	I _{FP}	1/10 Duty 10KHz	Pure Green	100	mA
Reverse Voltage Per Bar	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 Bar	—	3.2	3.6	V
Reverse Current	I _R	V _R =5V	Per Bar	—	—	100	μA
Luminous Intensity	I _V	I _F =10mA	Per Bar	15251	23500	37000	μcd
Wave Length	λ _P	I _F =20mA	Per Bar	—	—	—	nm
	λ _D				525		
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
S	S	I _F =10mA	15251	18000	μcd
T	T	I _F =10mA	18001	21500	μcd
U	U	I _F =10mA	21501	26000	μcd
V	V	I _F =10mA	26001	31000	μcd
W	W	I _F =10mA	31001	37000	μcd

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

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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 $\pm$ 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 $^\circ\text{C}$ ~ 25 $^\circ\text{C}$ ~ -35 $^\circ\text{C}$ ~ 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 $\pm 5^\circ\text{C}$ ~ -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 Pattern A:

168 pcs / Red Expandable Polyethylene.

1000 pcs / Box(360*175*130mm).

6000 pcs / Catton(550*380*280mm).

Package Pattern B:

20 pcs / IC Tube.

1540 pcs / Box(537*175*125mm).

6160 pcs / Catton(550*380*280mm).