

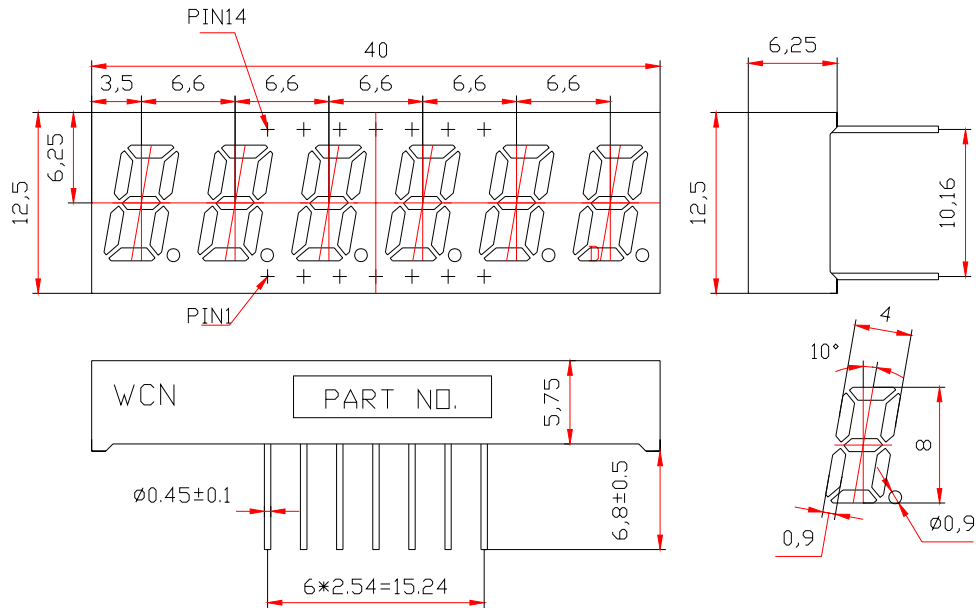
**WCN6-0032B7-A11
SPECIFICATION**

| WCN | | | CUSTOMER Confirmed |
|------------------|------------|-------------|-----------------------|
| Prepared by | Checked by | Approved by | |
| Fei 2016-3-29 | Athena | | |
| REVISION RECORD | | | |



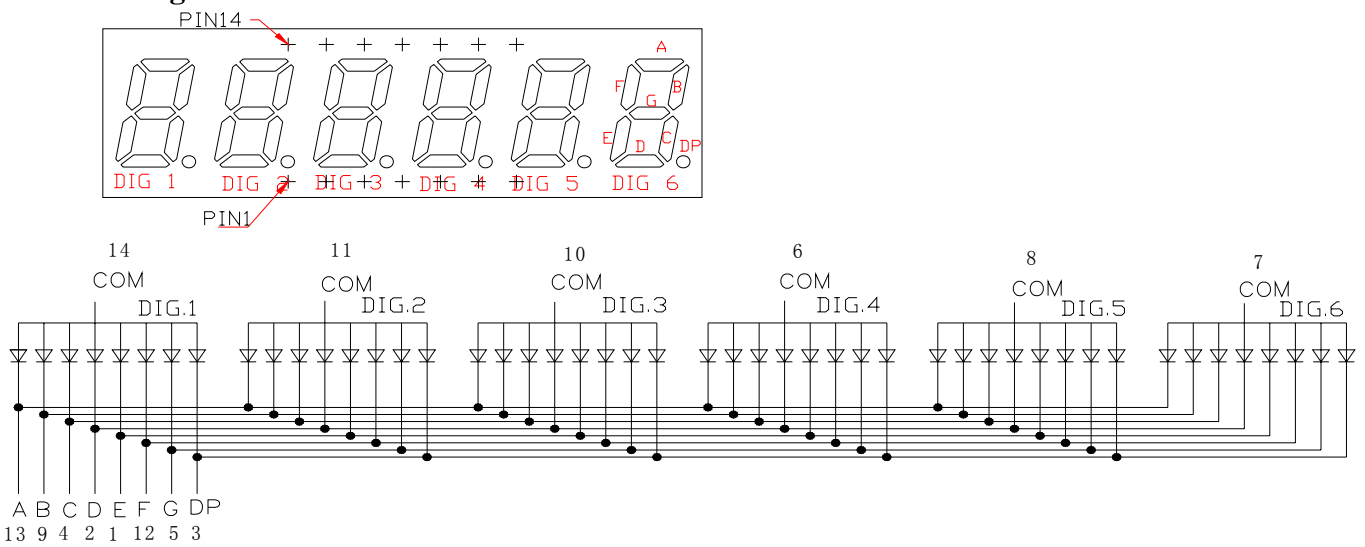
REVISION: A0

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 | Anode E | 8 | Common Cathode Dig5 |
| 2 | Anode D | 9 | Anode B |
| 3 | Anode DP | 10 | Common Cathode Dig3 |
| 4 | Anode C | 11 | Common Cathode Dig2 |
| 5 | Anode G | 12 | Anode F |
| 6 | Common Cathode Dig4 | 13 | Anode A |
| 7 | Common Cathode Dig6 | 14 | Common Cathode Dig1 |

WCN Opto Group Co., Limited

■ Features:

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

■ Description:

- Six Digit LED Display
- Digit Height:8.0mm(0.32")
- Black Face and Milky Segment

■ Absolute Maximum Rating (Ta=25°C):

| Parameter | Symbol | Condition | Color | Rating | Units |
|----------------------------------|------------------|--------------------|-------|---------|-------|
| Power Dissipation Per Segment | P _d | — | Blue | 90 | mW |
| Forward Current Per Segment | I _F | — | Blue | 25 | mA |
| Peak Forward Current Per Segment | I _{FP} | 1/10 Duty 10KHz | Blue | 100 | mA |
| Reverse Voltage Per Segment | V _R | — | Blue | 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 | — | 3.20 | 3.60 | V |
| Reverse Current | I _R | V _R =5V | Per Segment | — | — | 100 | μA |
| Luminous Intensity | I _v | I _F =10mA | Per Segment | 6101 | 9500 | 15250 | μcd |
| Peak Emission Wave Length | λ _P | I _F =20mA | Per Segment | — | — | — | nm |
| | λ _D | | | 465 | 470 | 475 | |
| Spectral Line Half Width | Δλ | I _F =20mA | Per Segment | — | 30 | — | 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 |
|------|--------|----------------------|-------|-------|------|
| N | N | I _F =10mA | 6101 | 7200 | μcd |
| O | O | I _F =10mA | 7201 | 8500 | μcd |
| P | P | I _F =10mA | 8501 | 10500 | μcd |
| Q | Q | I _F =10mA | 10501 | 12800 | μcd |
| R | R | I _F =10mA | 12801 | 15250 | μcd |

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

■ **Typical Elector-Optical Characteristics Curve:**

Fig1. Forward Current vs. Forward Voltage:

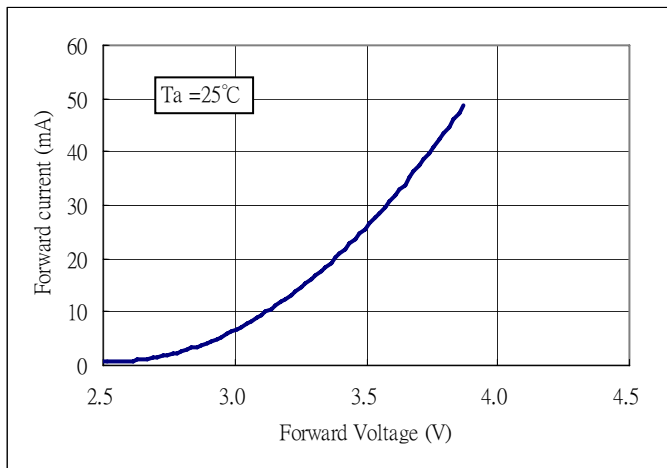


Fig2. Forward Current vs. Relative Intensity:

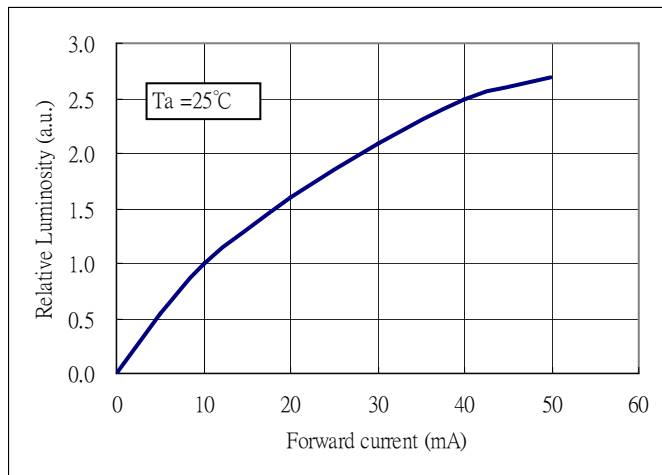


Fig3. Forward Current vs. Relative wavelength:

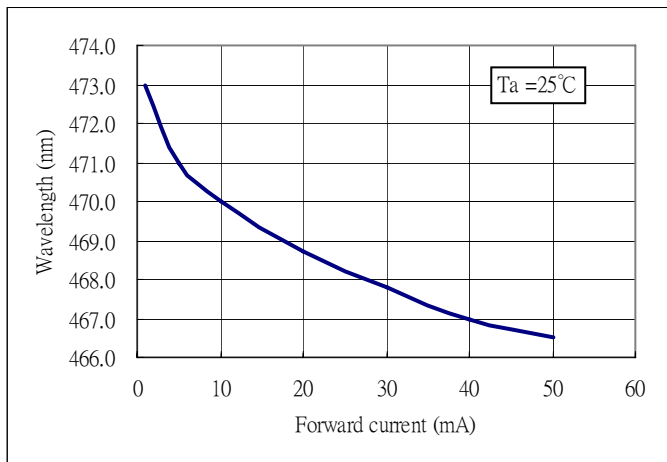
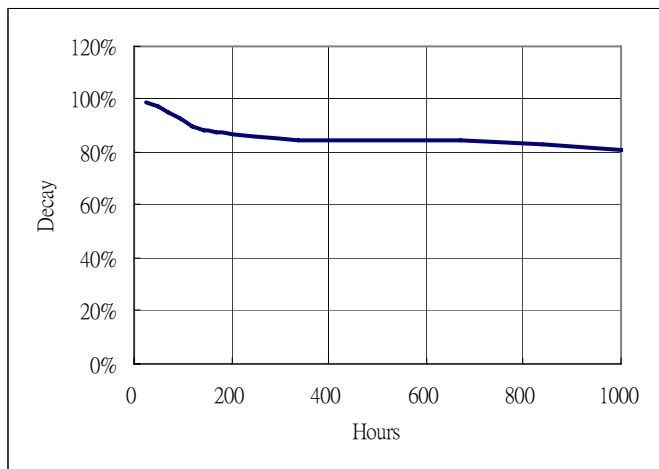


Fig4. Life Test at 20mA R.T. 1000hrs:



■ 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 $I_F = I_{F \text{ max}}$ |
| | 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. |

■ Packing method A:

96 pcs / Red Expandable Polyethylene.

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

3420 pcs / Carton(550*380*280mm).

■ Packing method B:

12 pcs / IC Tube.

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

3696 pcs / Carton(550*380*280mm).