

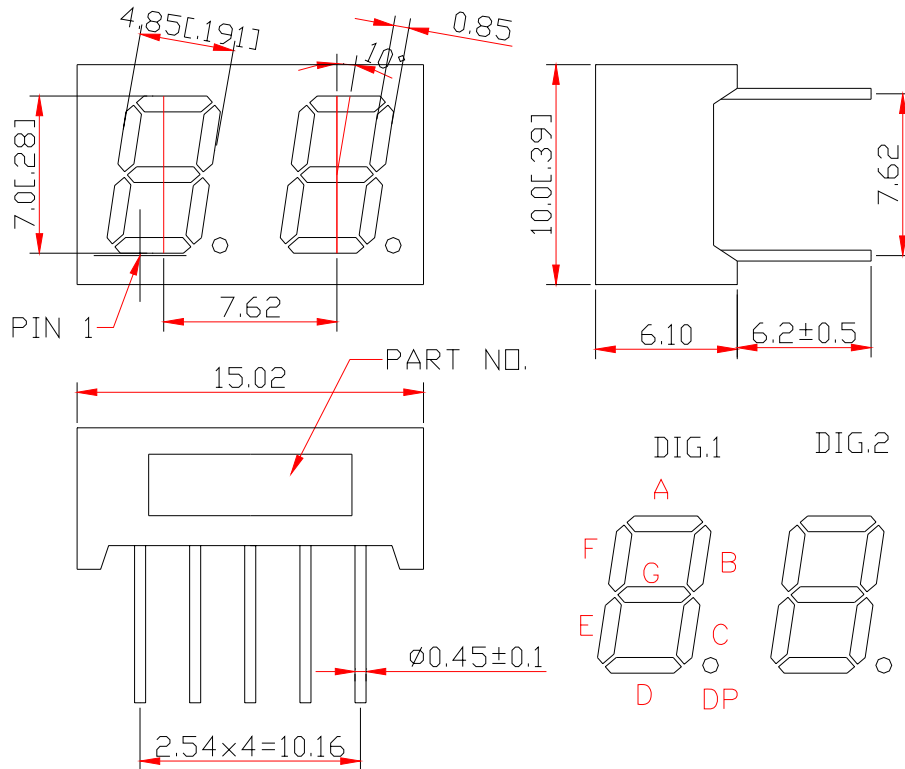
WCN2-1028R6-A11**SPECIFICATION**

| WCN | | | CUSTOMER Confirmed |
|-----------------|------------|-------------|-----------------------|
| Prepared by | Checked by | Approved by | |
| Fei 2016-5-2 | Athena | William | |
| REVISION RECORD | | | |



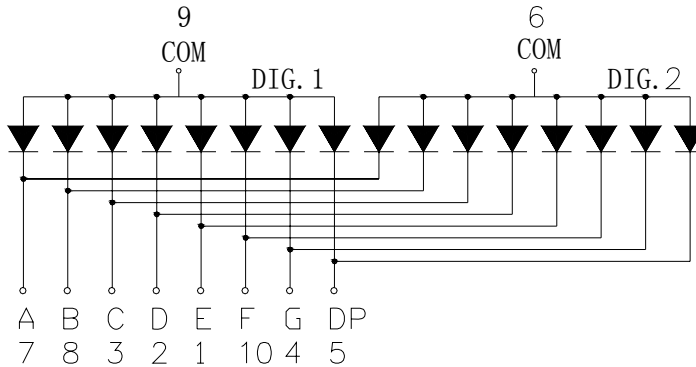
REVISION: A0

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 | Cathode E | 6 | Common Anode |
| 2 | Cathode D | 7 | Cathode A |
| 3 | Cathode C | 8 | Cathode B |
| 4 | Cathode G | 9 | Common Anode |
| 5 | Cathode DP | 10 | Cathode F |

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■ **Features:**

- High Reliability
- Color: Supper Bright Red.
- Low Power Requirement
- Easy Assembly

■ **Description:**

- Dual Digit Display
- Digit Height:7.0mm(0.28")
- Gray Face and White Segment

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

| Parameter | Symbol | Condition | Color | Rating | Units |
|----------------------------------|------------------|--------------------|-------|---------|-------|
| Power Dissipation Per Segment | P _d | — | Red | 65 | mW |
| Forward Current Per Segment | I _F | — | Red | 25 | mA |
| Peak Forward Current Per Segment | I _{FP} | 1/10 Duty 10KHz | Red | 100 | mA |
| Reverse Voltage Per Segment | V _R | — | Red | 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 | — | 2.00 | 2.60 | V |
| Reverse Current | I _R | V _R =5V | Per Segment | — | — | 100 | μA |
| Luminous Intensity | I _v | I _F =10mA | Per Segment | 4001 | 6500 | — | μcd |
| Peak Emission Wave Length | λ _P | I _F =20mA | Per Segment | — | 640 | — | nm |
| | λ _D | | | — | 631 | — | |
| 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 | |

■ **Wave-Soldering Conditions: Soldering Temp. ≤+260°C, Soldering Time. ≤3sec.**

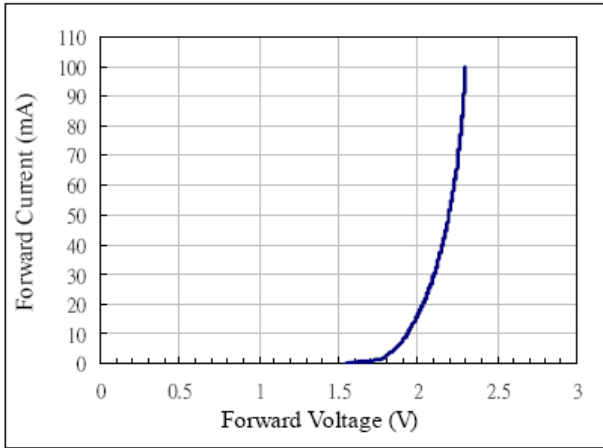
Handmade Conditions: Soldering Temp. ≤+320°C, Soldering Time. ≤3sec.

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

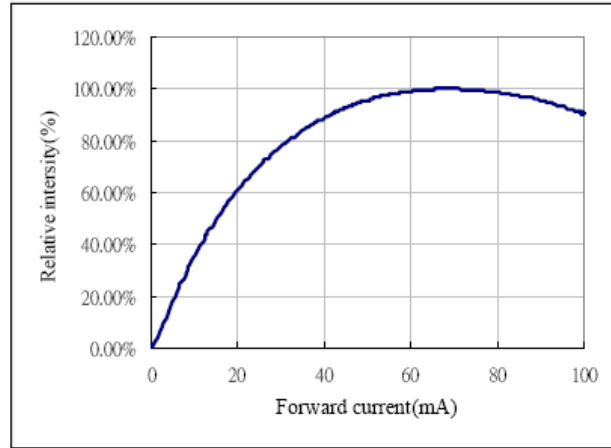
■ **Electrostatic Discharge Threshold: HBM 1500V**

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

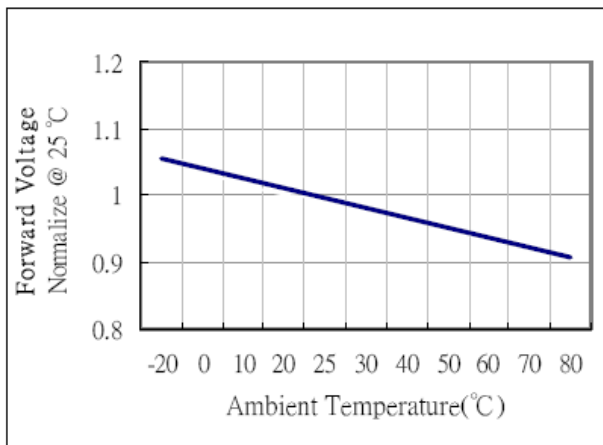
Forward current vs. Forward voltage



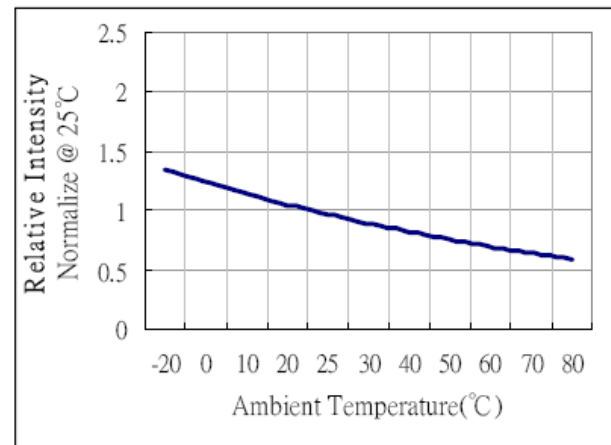
Relative intensity vs. Forward current



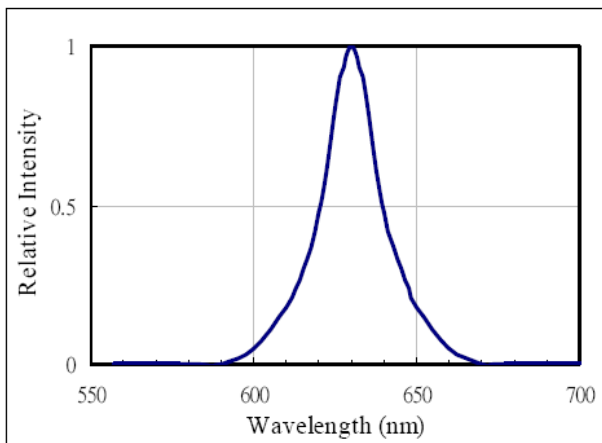
Forward voltage vs. Temperature



Relative intensity vs. Temperature



Relative intensity vs. Wavelength



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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 Pattern :

33 pcs / IC Tube.

2541 pcs / Box (537*175*125mm).

10164 pcs / Carton (550*380*280mm).