



## 0.32"(8.00mm)Single Digit 7 Segment Display

### Features:

- \*Ultra segment intensity
- \*Wide viewing angle
- \*Range of colors
- \*Gray face White segment
- \*RoHS compliant

### Available option:

- \*Alternative face and segment color
- \*Alternative font
- \*Cropped terminal pins
- \*Available emitting color
- \*Low current version

### Electro/Optical Characteristics If=20mA Ta=25°C

| Part Number<br>Common Cathode | Part Number<br>Common Anode | Emitting Color            | Peak<br>Wavelength | Forward Voltage Vf/Seg. |      | Luminous Intensity Iv/Seg. |        |
|-------------------------------|-----------------------------|---------------------------|--------------------|-------------------------|------|----------------------------|--------|
|                               |                             |                           |                    | Typ.                    | Max. | Min.                       | Typ.   |
| NFD-3211AUHR-21               | NFD-3211BUHR-21             | AlGaInP/GaAs Ultra Red    | 640                | 2.00                    | 2.50 | 40.00                      | 60.00  |
| NFD-3211AUE-21                | NFD-3211BUE-21              | AlGaInP/GaAs Ultra Orange | 632                | 2.00                    | 2.50 | 40.00                      | 60.00  |
| NFD-3211AYO-21                | NFD-3211BYO-21              | AlGaInP/GaAs Ultra Amber  | 605                | 2.00                    | 2.50 | 40.00                      | 60.00  |
| NFD-3211AUY-21                | NFD-3211BUY-21              | AlGaInP/GaAs Ultra Yellow | 590                | 2.00                    | 2.50 | 40.00                      | 60.00  |
| NFD-3211AUG-21                | NFD-3211BUG-21              | AlGaInP/GaAs Ultra Green  | 574                | 2.10                    | 2.50 | 25.00                      | 40.00  |
| NFD-3211APG-21                | NFD-3211BPG-21              | InGaN/SiC Pure Green      | 525                | 3.30                    | 3.80 | 150.00                     | 200.00 |
| NFD-3211AUB-21                | NFD-3211BUB-21              | InGaN/SiC Ultra Blue      | 470                | 3.30                    | 3.80 | 40.00                      | 100.00 |
| NFD-3211AUW-21                | NFD-3211BUW-21              | InGaN/SiC Ultra White     | X-0.31/Y-0.31      | 3.30                    | 3.80 | 200.00                     | 500.00 |
| Units                         |                             |                           | nm                 | V                       |      | mcd                        |        |

### Maximum Ratings Ta=25°C (Derate above 25°C)

| Characteristic                 | Test Condition                     | Symbol           | UHR        | UE   | YO   | UY   | UG   | PG    | UB    | UW    | Units |
|--------------------------------|------------------------------------|------------------|------------|------|------|------|------|-------|-------|-------|-------|
| Pulse Forward Current Per Seg. | 1/10 duty cycle 0.1ms Pulse width  | I <sub>FP</sub>  | 100        | 100  | 100  | 100  | 100  | 100   | 100   | 100   | mA    |
| DC Forward Current Per Seg.    |                                    | I <sub>F</sub>   | 30         | 30   | 30   | 30   | 30   | 30    | 30    | 30    | mA    |
| Reverse Current Per Seg.       | V <sub>R</sub> =5V                 | I <sub>R</sub>   | 10         | 10   | 10   | 10   | 10   | 10    | 10    | 10    | μA    |
| Power Dissipation              |                                    | P <sub>D</sub>   | 65*8       | 65*8 | 65*8 | 65*8 | 75*8 | 110*8 | 120*8 | 120*8 | mW    |
| Operating Temperature          |                                    | T <sub>OPR</sub> | -40 to +80 |      |      |      |      |       |       |       | °C    |
| Storage Temperature            |                                    | T <sub>TSG</sub> | -40 to +85 |      |      |      |      |       |       |       | °C    |
| Lead soldering temperature     | 1.60mm from body maximum 3 seconds |                  | 260        |      |      |      |      |       |       |       | °C    |

Checked

Chen N.H.

Approved

Jason Chen

Date

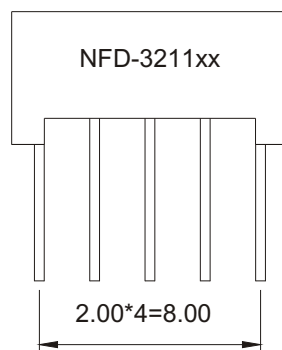
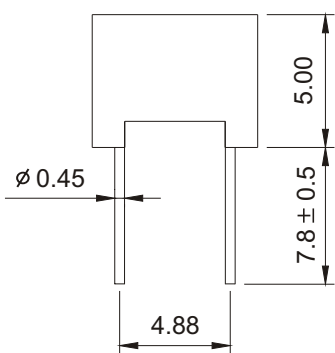
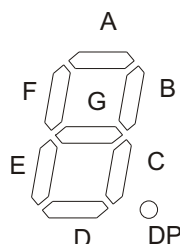
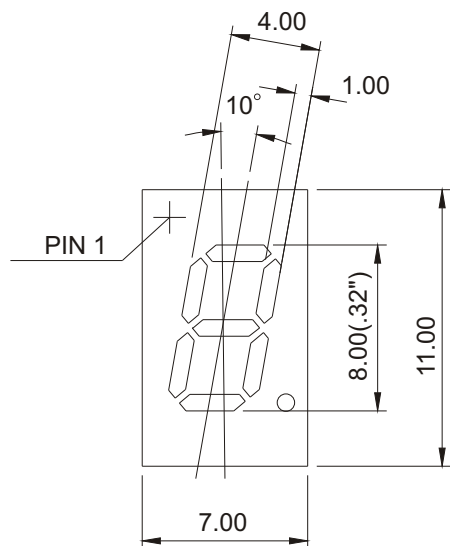
Mar/15/2007

PAGE 1 / 2



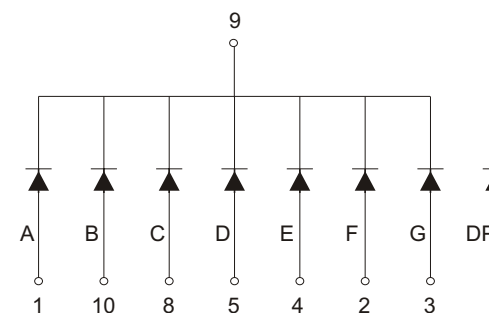
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### PACKAGE DIMENSION

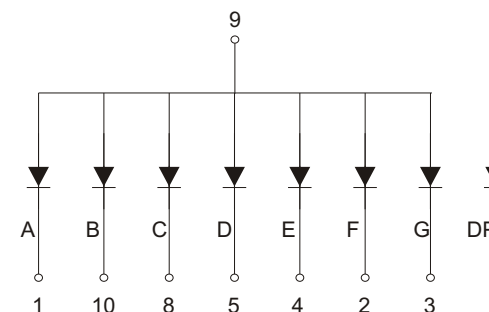


### INTERNAL CIRCUIT DIAGRAM

#### Common Cathode NFD-3211Ax



#### Common Anode NFD-3211Bx



Tolerance  $\pm 0.25\text{mm}$  unless stated

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PAGE 2 / 2