



0.40"(10.20mm)Three Digit 7 Segment Display

Features:

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

Available option:

- *Alternative face and segment color
- *Alternative font
- *Cropped terminal pins
- *Available emitting color

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

| Part Number Common Cathode | Part Number Common Anode | Emitting Color | Peak Wavelength | Forward Voltage Vf/Seg. | | Luminous Intensity Iv/Seg. | |
|-------------------------------|-----------------------------|---------------------------|--------------------|-------------------------|------|----------------------------|--------|
| | | | | Typ. | Max. | Min. | Typ. |
| NFD-4031AUHR-11 | NFD-4031BUHR-11 | AlGaInP/GaAs Ultra Red | 640 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-4031AUE-11 | NFD-4031BUE-11 | AlGaInP/GaAs Ultra Orange | 632 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-4031AYO-11 | NFD-4031BYO-11 | AlGaInP/GaAs Ultra Amber | 605 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-4031AUY-11 | NFD-4031BUY-11 | AlGaInP/GaAs Ultra Yellow | 590 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-4031AUG-11 | NFD-4031BUG-11 | AlGaInP/GaAs Ultra Green | 574 | 2.10 | 2.50 | 25.00 | 40.00 |
| NFD-4031APG-11 | NFD-4031BPG-11 | InGaN/SiC Pure Green | 525 | 3.30 | 3.80 | 150.00 | 200.00 |
| NFD-4031AUB-11 | NFD-4031BUB-11 | InGaN/SiC Ultra Blue | 470 | 3.30 | 3.80 | 40.00 | 100.00 |
| NFD-4031AUW-11 | NFD-4031BUW-11 | 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 _{FP} | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | mA |
| DC Forward Current Per Seg. | | I _F | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | mA |
| Reverse Current Per Seg. | V _R =5V | I _R | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | μA |
| Power Dissipation | | P _D | 65*24 | 65*24 | 65*24 | 65*24 | 75*24 | 110*24 | 120*24 | 120*24 | mW |
| Operating Temperature | | T _{OPR} | -40 to +80 | | | | | | | | °C |
| Storage Temperature | | T _{TSG} | -40 to +85 | | | | | | | | °C |
| Lead soldering temperature | 1.60mm from body maximum 3 seconds | | 260 | | | | | | | | °C |

Checked

Chen N.H.

Approved

Jason Chen

Date

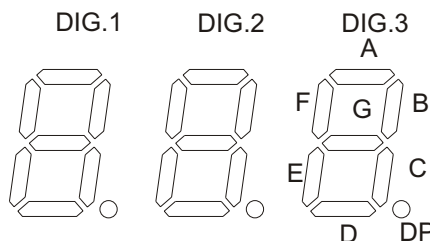
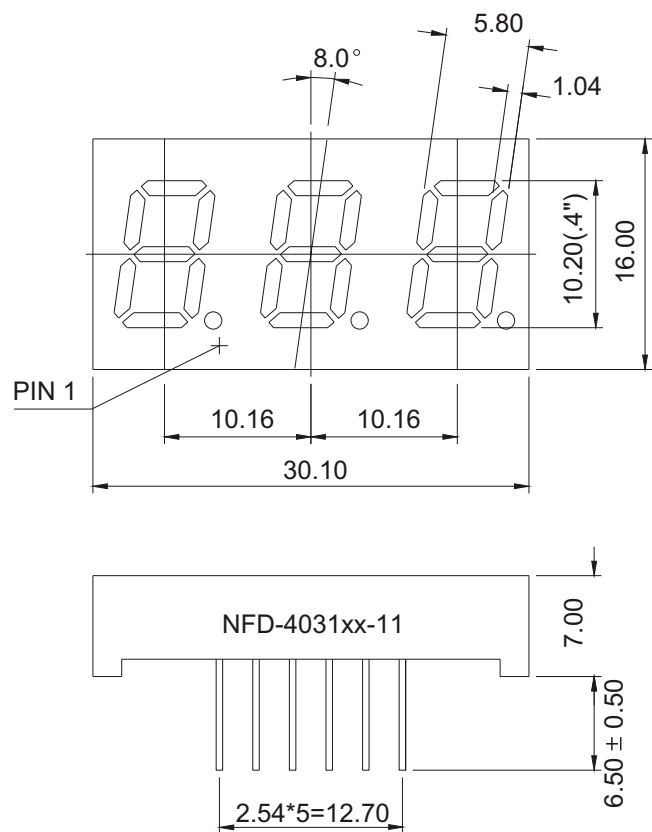
Nov/20/2006

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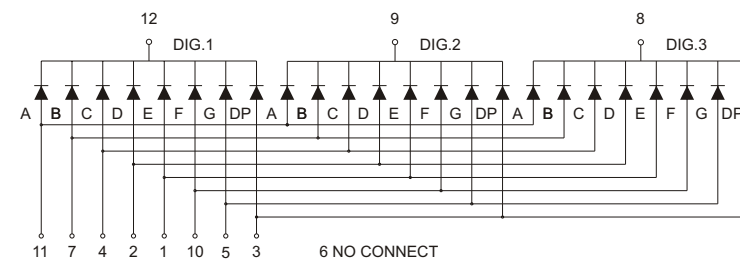
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PACKAGE DIMENSION

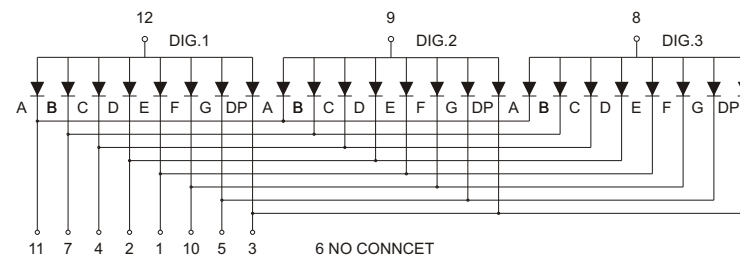


INTERNAL CIRCUIT DIAGRAM

Common Cathode NFD-4031Ax



Common Anode NFD-4031Bx



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