



0.50"(12.70mm)Dual 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
- *Low current version

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-5021EUHR-11 | NFD-5021FUHR-11 | AlGaInP/GaAs Ultra Red | 640 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-5021EUE-11 | NFD-5021FUE-11 | AlGaInP/GaAs Ultra Orange | 632 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-5021EYO-11 | NFD-5021FYO-11 | AlGaInP/GaAs Ultra Amber | 605 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-5021EUY-11 | NFD-5021FUY-11 | AlGaInP/GaAs Ultra Yellow | 590 | 2.00 | 2.50 | 40.00 | 60.00 |
| NFD-5021EUG-11 | NFD-5021FUG-11 | AlGaInP/GaAs Ultra Green | 574 | 2.10 | 2.50 | 25.00 | 40.00 |
| NFD-5021EPG-11 | NFD-5021FPG-11 | InGaN/SiC Pure Green | 525 | 3.30 | 3.80 | 150.00 | 200.00 |
| NFD-5021EUB-11 | NFD-5021FUB-11 | InGaN/SiC Ultra Blue | 470 | 3.30 | 3.80 | 40.00 | 100.00 |
| NFD-5021EUW-11 | NFD-5021FUW-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*16 | 65*16 | 65*16 | 65*16 | 75*16 | 110*16 | 120*16 | 120*16 | 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

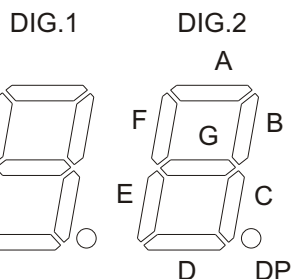
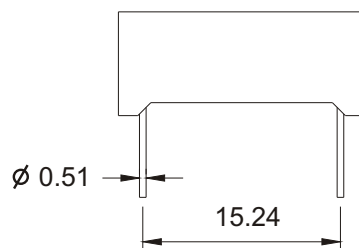
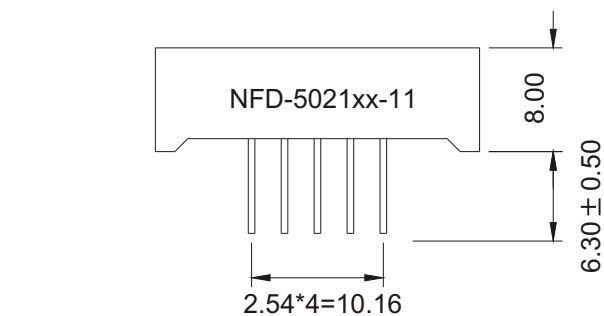
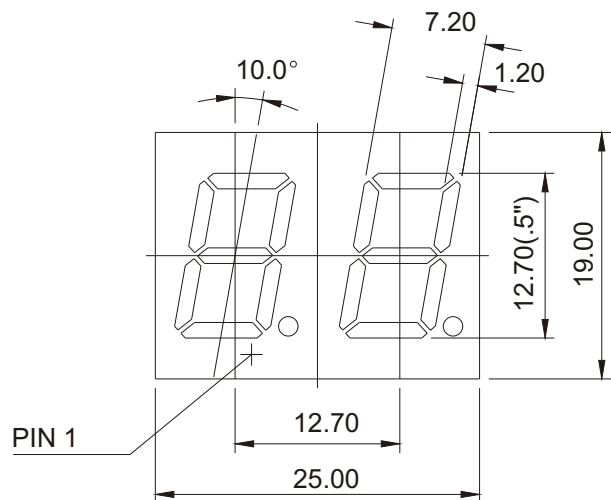
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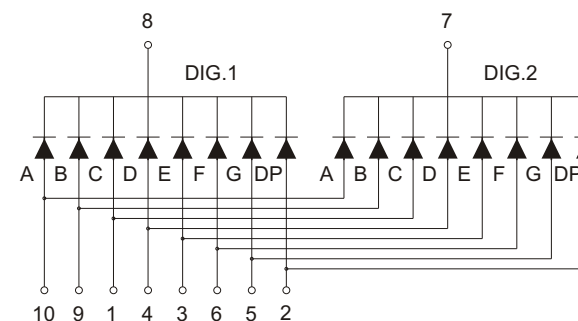
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PACKAGE DIMENSION

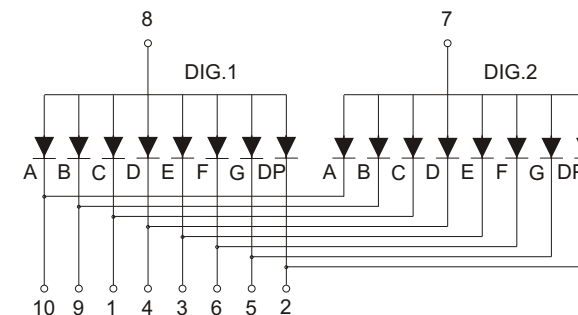


INTERNAL CIRCUIT DIAGRAM

Common Cathode NFD-5021Ex



Common Anode NFD-5021Fx



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