



3.00"(75.60mm)Single Digit 7 Segment Display

Features:

- *High 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 V _F /Seg.(DP) | | Luminous Intensity I _v /Seg.(DP) | |
|-------------------------------|-----------------------------|--------------------------|--------------------|--|--------------|---|----------------|
| | | | | Typ. | Max. | Min. | Typ. |
| NFD-30013AH-11 | NFD-30013BH-11 | GaP/GaP Red | 700 | 9.00 (2.25) | 10.00 (2.50) | 1.60 (0.40) | 3.20 (0.80) |
| NFD-30013AS-11 | NFD-30013BS-11 | GaAlAs/GaAs SH Hi-Red | 660 | 7.20 (1.80) | 8.80 (2.20) | 32.00 (8.00) | 48.00 (12.00) |
| NFD-30013AD-11 | NFD-30013BD-11 | GaAlAs/GaAs DH Super Red | 660 | 7.20 (1.80) | 8.80 (2.20) | 88.00 (22.00) | 112.00 (28.00) |
| NFD-30013AE-11 | NFD-30013BE-11 | GaAsP/GaP Orange | 632 | 8.40 (2.10) | 10.00 (2.50) | 32.00 (8.00) | 48.00 (12.00) |
| NFD-30013AY-11 | NFD-30013BY-11 | GaAsP/GaP Yellow | 585 | 8.40 (2.10) | 10.00 (2.50) | 16.00 (4.00) | 28.00 (7.00) |
| NFD-30013AG-11 | NFD-30013BG-11 | GaP/GaP Green | 568 | 8.80 (2.20) | 10.00 (2.50) | 28.00 (7.00) | 44.00 (11.00) |
| Units | | | nm | V | | mcd | |

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

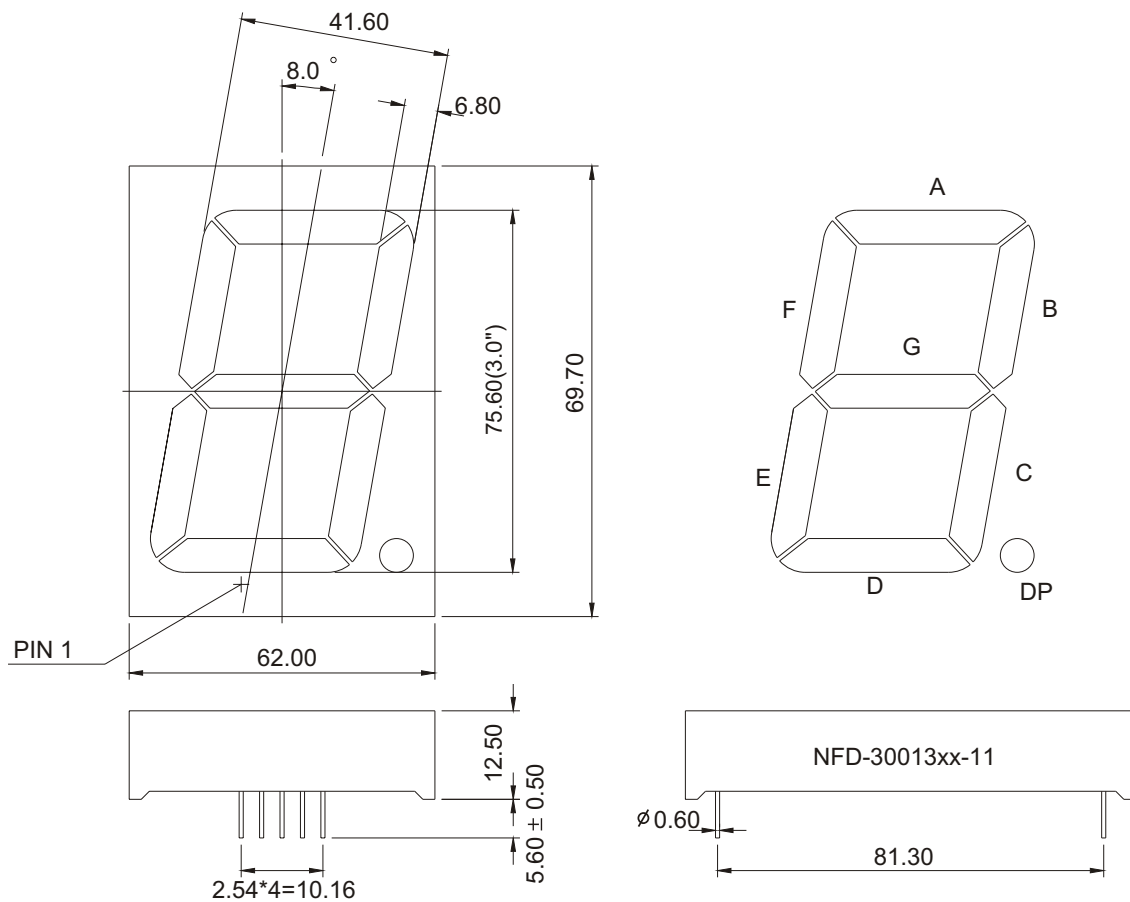
| Characteristic | Test Condition | Symbol | H | S | D | E | Y | G | Units |
|--------------------------------|------------------------------------|------------------|------------|-------|-------|-------|-------|-------|-------|
| Pulse Forward Current Per Seg. | 1/10 duty cycle 0.1ms Pulse width | I _{FP} | 50 | 100 | 100 | 100 | 100 | 100 | mA |
| DC Forward Current Per Seg. | | I _F | 15 | 25 | 25 | 30 | 30 | 30 | mA |
| Reverse Current Per Seg. | V _R =10V | I _R | 10 | 10 | 10 | 10 | 10 | 10 | μA |
| Power Dissipation | | P _D | 40*30 | 60*30 | 60*30 | 80*30 | 80*30 | 80*30 | 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 | Mar/15/2007 | PAGE 1 / 2 | | | |
|---------|-----------|----------|------------|------|-------------|------------|--|--|--|



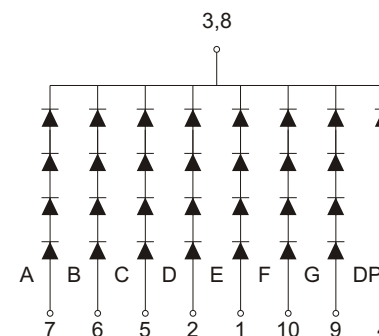
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PACKAGE DIMENSION

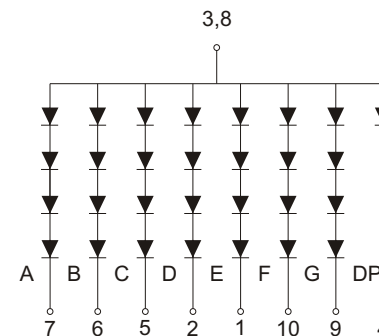


INTERNAL CIRCUIT DIAGRAM

Common Cathode
NFD-30013Ax



Common Anode
NFD-30013Bx



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