

FEATURES

- High intensity and reliability.
- High quality and low cost.
- Choice of colors: Red/Orange/Bright Green.
- Low power requirement.
- I. C. compatible.
- Easy assembly.

DESCRIPTION

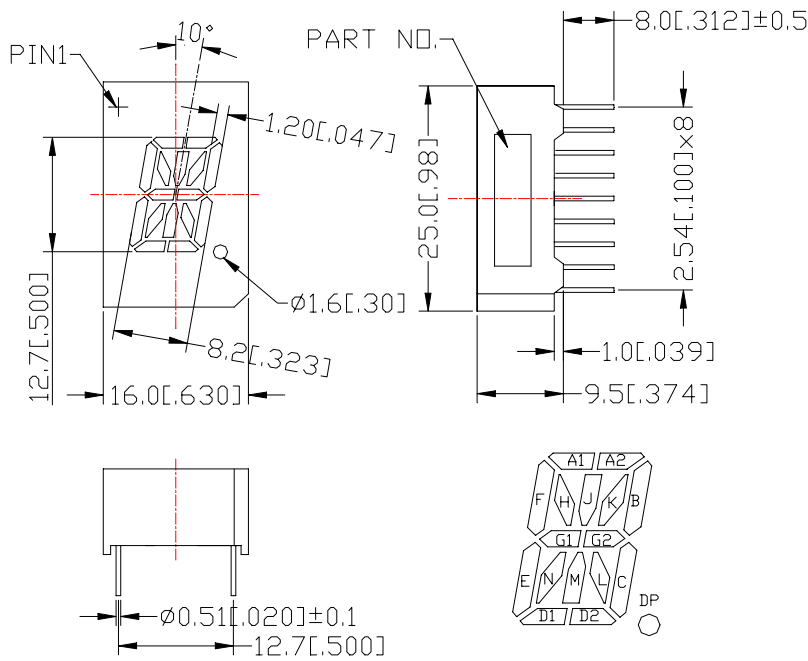
The WCNX-XX50XX-XXX series are 0.50inch (12.7mm) height 16-segment digit alphanumeric displays.

SH. Red displays have black face or gray face and milky segment or red segment.

Orange displays have black face or gray face and milky segment or red segment.

Bright Green displays have black face or gray face and milky segment or green segment.

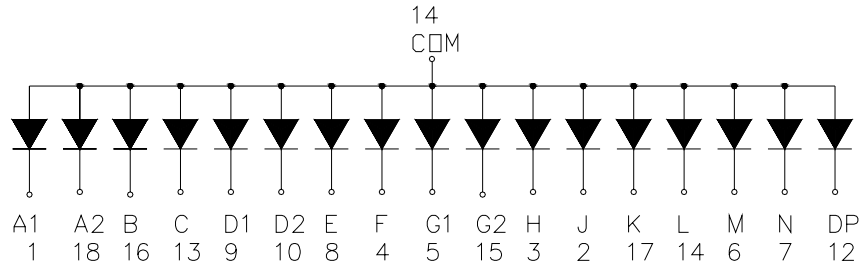
PACKAGE DIMENSIONS



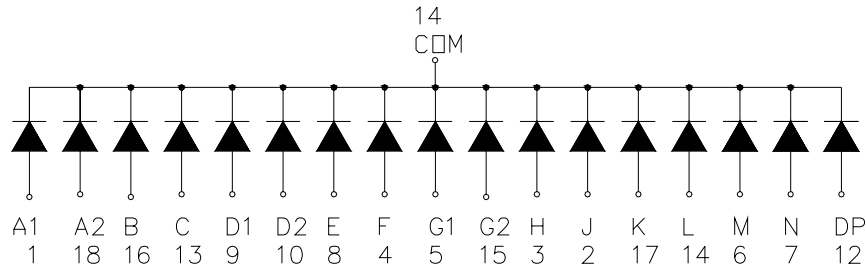
NOTES: All dimensions are in millimeters (inches) tolerance are ± 0.25 mm(0.010) unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM

A. WCNX-XX50XX-A2X



B. WCNX-XX50XX-C2X



ABSOLUTE MAXIMUM RATINGS AT T_a=25°C

| PARAMETER | SH.RED | ORANGE | BRIGHT GREEN | UNIT |
|---|-----------------|--------|--------------|-------|
| Power Dissipation Per Segment | 50 | 65 | 65 | mW |
| Peak Forward Current Per Segment (1/10duty cycle 0.1ms pulse width) | 100 | 100 | 100 | mA |
| Continuous Forward Current Per Segment | 25 | 25 | 25 | mA |
| Departing Linear From 25°C Per Segment | 0.30 | 0.20 | 0.33 | mA/°C |
| Reverse Voltage Per Segment | 5 | 5 | 5 | V |
| Operating Temperature Range | -35°C to + 85°C | | | |
| Storage Temperature Range | -35°C to + 85°C | | | |
| Solder Temperature 1/16 inch below seating plane for 3 seconds at 260°C | | | | |

ELECTRICAL/OPTICAL CHARACTERISTICS AT T_a=25°C

WCNX-0050SR-A21/C21

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|---|-----------------|------|------|------|---------------|-------------------|
| Luminous Intensity Per Segment | I_V | 2.0 | 4.0 | — | mcd | $I_F=10\text{mA}$ |
| Dominant Wavelength | λ_D | — | 643 | — | nm | $I_F=20\text{mA}$ |
| Peak Emission Wavelength | λ_P | — | 660 | — | nm | $I_F=20\text{mA}$ |
| Spectral Line Half-Width | $\Delta\lambda$ | — | 20 | — | nm | $I_F=20\text{mA}$ |
| Forward Voltage Per Segment | V_F | — | 1.8 | 2.0 | V | $I_F=20\text{mA}$ |
| Reverse Current Per Segment | I_R | — | — | 100 | μA | $V_R=5\text{V}$ |
| Luminous Intensity Matching Ratio (Segment To Segment) | I_{V-m} | | | 2:1 | | $I_F=10\text{mA}$ |

WCNX-0050HO-A21/C21

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|---|-----------------|------|------|------|---------------|-------------------|
| Luminous Intensity Per Segment | I_V | 0.8 | 2.0 | — | mcd | $I_F=10\text{mA}$ |
| Dominant Wavelength | λ_D | — | 622 | — | nm | $I_F=20\text{mA}$ |
| Peak Emission Wavelength | λ_P | — | 632 | — | nm | $I_F=20\text{mA}$ |
| Spectral Line Half-Width | $\Delta\lambda$ | — | 35 | — | nm | $I_F=20\text{mA}$ |
| Forward Voltage Per Segment | V_F | — | 2.05 | 2.6 | V | $I_F=20\text{mA}$ |
| Reverse Current Per Segment | I_R | — | — | 100 | μA | $V_R=5\text{V}$ |
| Luminous Intensity Matching Ratio (Segment To Segment) | I_{V-m} | | | 2:1 | | $I_F=10\text{mA}$ |

WCNX-0050GU-A21/C21

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|---|-----------------|------|------|------|---------------|-------------------|
| Luminous Intensity Per Segment | I_V | 1.25 | 3.0 | — | mcd | $I_F=10\text{mA}$ |
| Dominant Wavelength | λ_D | — | 573 | — | nm | $I_F=20\text{mA}$ |
| Peak Emission Wavelength | λ_P | — | 568 | — | nm | $I_F=20\text{mA}$ |
| Spectral Line Half-Width | $\Delta\lambda$ | — | 30 | — | nm | $I_F=20\text{mA}$ |
| Forward Voltage Per Segment | V_F | 1.8 | 2.25 | 2.6 | V | $I_F=20\text{mA}$ |
| Reverse Current Per Segment | I_R | — | — | 100 | μA | $V_R=5\text{V}$ |
| Luminous Intensity Matching Ratio (Segment To Segment) | I_{V-m} | | | 2:1 | | $I_F=10\text{mA}$ |