WCNLBA-XX12
WCNLB5-XX12
WCNLB0806-XX11
WCNLB1106-XX11

SERIES

BAR LED DISPLAYS

FEATURES

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

DESCRIPTION

The Bar series LED displays are:

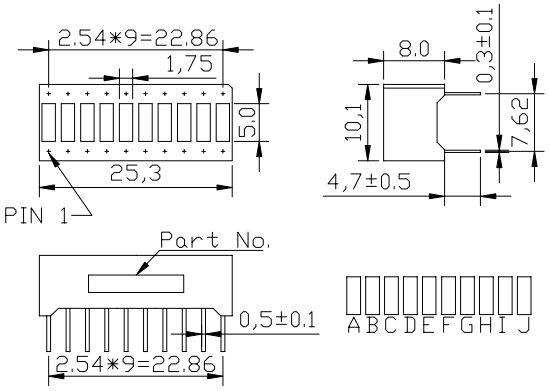
SH. Red displays have black face or gray face or white and milky or red window.

Orange displays have black face or gray face or white and milky or red window.

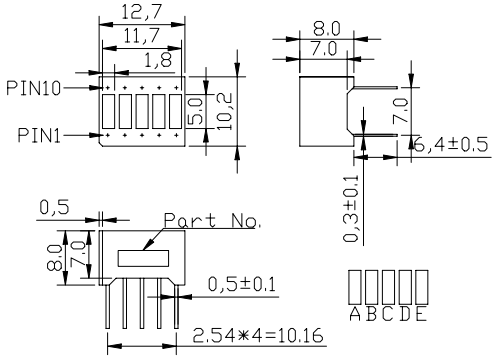
Bright Green displays have black face or gray face or white and milky or green window.

PACKAGE DIMENSIONS

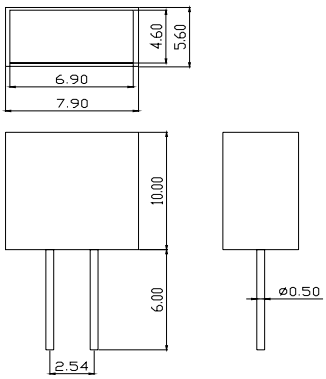
A. WCNLBA-XX12



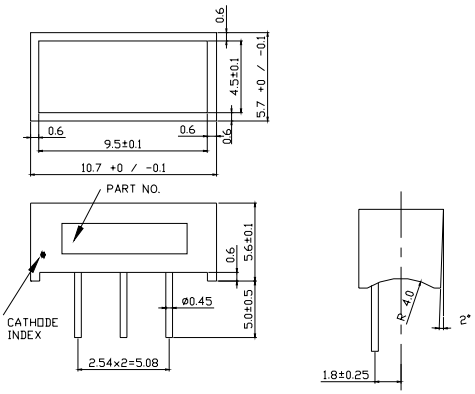
B. WCNLB5-XX12



C. WCNLB0806-XX11



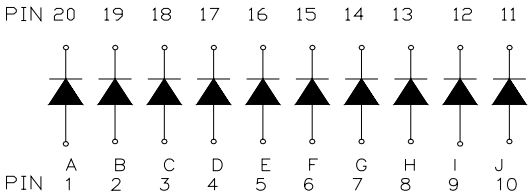
D. WCNLB1106-XX11



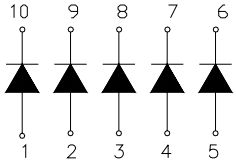
NOTES: All dimensions are in millimeters (inches) tolerance are ± 0.25mm(0.010) unless otherwise noted.

INTERNAL CIRCUIT DIAGRAM

A. WCNLBA-XX12

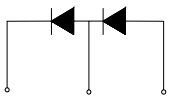


B. WCNLB5-XX12



C. WCNLB0806-XX11

D. WCNLB1106-XX11



ABSOLUTE MAXIMUM RATINGS AT T_a=25 °C

PARAMETER	SH.RED	SD	BRIGHT GREEN	UNIT
Power Dissipation Per Window	50	65	65	mW
Peak Forward Current Per Window (1/10duty cycle 0.1ms pulse width)	100	100	100	mA
Continuous Forward Current Per Window	25	25	25	mA
Derating Linear From 25°C Per Window	0.30	0.20	0.33	mA/°C
Reverse Voltage Per Window	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

WCNLBA-SR12/ WCNLB5-SR12/ WCNLB0806-SR11/ WCNLB1106-SR11

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity Per Window	I_V	3.0	5.5	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	643	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	660	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	20	—	nm	I_F=20mA
Forward Voltage Per Window	V_F	—	1.8	2.0	V	I_F=20mA
Reverse Current Per Window	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Window To Window)	I_{V-m}			2:1		I_F=10mA

ELECTRICAL/OPTICAL CHARACTERISTICS AT T_a=25°C

WCNLBA-HO12/ WCNLB5-HO12/ WCNLB0806-HO11/ WCNLB1106-HO11

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity Per Window	I_V	1.25	3.0	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	622	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	632	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	35	—	nm	I_F=20mA
Forward Voltage Per Window	V_F	—	2.1	2.6	V	I_F=20mA
Reverse Current Per Window	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Window To Window)	I_{V-m}			2:1		I_F=10mA

WCNLBA-GU12/ WCNLB5-GU12/ WCNLB0806-GU11/ WCNLB1106-GU11

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity Per Window	I_V	2.0	4.0	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	573	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	568	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	30	—	nm	I_F=20mA
Forward Voltage Per Window	V_F	—	2.3	2.6	V	I_F=20mA
Reverse Current Per Window	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Window To Window)	I_{V-m}			2:1		I_F=10mA

WCNLB1475-XX24
WCNLB2420-XX11
WCNLB3232-XX11
WCNLB4820-XX11

SERIES

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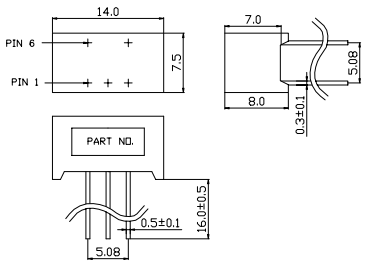
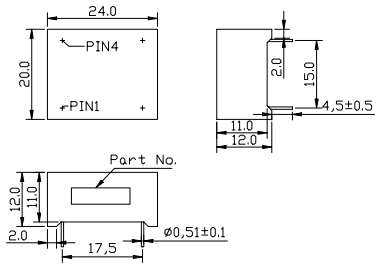
PACKAGE DIMENSIONS

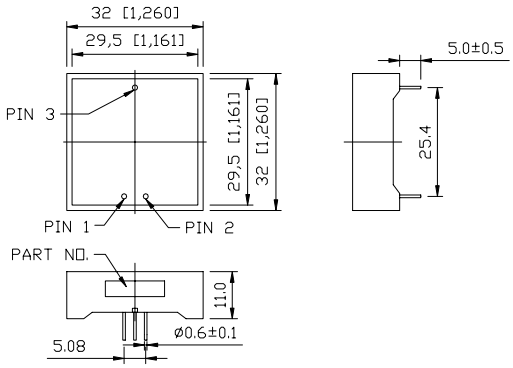
A. WCNLB1475-XX24



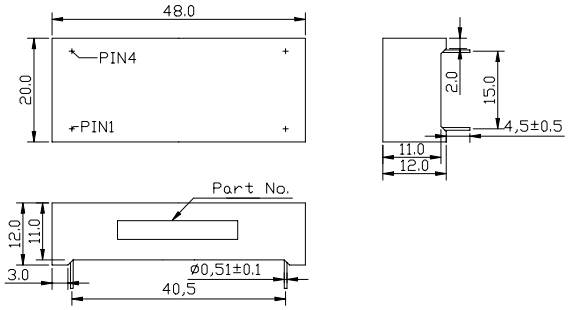
B. WCNLB2420-XX11



C. WCNLB3232-XX11



D. WCNLB4820-XX11



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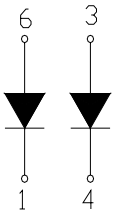
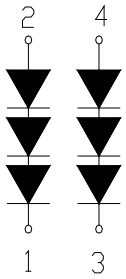
INTERNAL CIRCUIT DIAGRAM

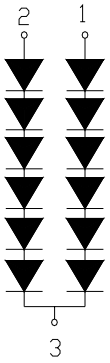
A. WCNLB1475-XX24



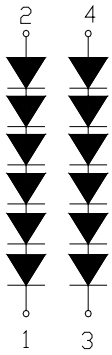
B. WCNLB2420-XX11



B. WCNLB3232-XX11



D. WCNLB4820-XX11



ABSOLUTE MAXIMUM RATINGS AT T_a=25 °C

PARAMETER	SH.RED	SD	BRIGHT GREEN	UNIT
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Derating Linear From 25°C Per Window	0.30	0.20	0.33	mA/°C
Reverse Voltage Per Window	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

WCN1475-SR24/WCNLB2420-SD11/WCNLB3232-SR11/ WCNLB4820-SD11

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity Per Window	I_V	3.0	5.5	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	643	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	660	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	20	—	nm	I_F=20mA
Forward Voltage Per Window	V_F	—	1.8	2.0	V	I_F=20mA
Reverse Current Per Window	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Window To Window)	I_{V-m}			2:1		I_F=10mA

WCN1475-HO24/WCNLB2420-HO11/ WCNLB3232-HO12/WCNLB4820-HO11

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity Per Window	I_V	1.25	3.0	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	622	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	632	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	35	—	nm	I_F=20mA
Forward Voltage Per Window	V_F	—	2.1	2.6	V	I_F=20mA
Reverse Current Per Window	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Window To Window)	I_{V-m}			2:1		I_F=10mA

WCN1475-GU24/WCNLB2420-GU11/ WCNLB3232-GU11/WCNLB4820-GU11

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Luminous Intensity Per Window	I_V	2.0	4.0	—	mcd	I_F=10mA
Dominant Wavelength	λ_D	—	573	—	nm	I_F=20mA
Peak Emission Wavelength	λ_P	—	568	—	nm	I_F=20mA
Spectral Line Half-Width	$\Delta\lambda$	—	30	—	nm	I_F=20mA
Forward Voltage Per Window	V_F	—	2.3	2.6	V	I_F=20mA
Reverse Current Per Window	I_R	—	—	100	μA	V_R=5V
Luminous Intensity Matching Ratio (Window To Window)	I_{V-m}			2:1		I_F=10mA