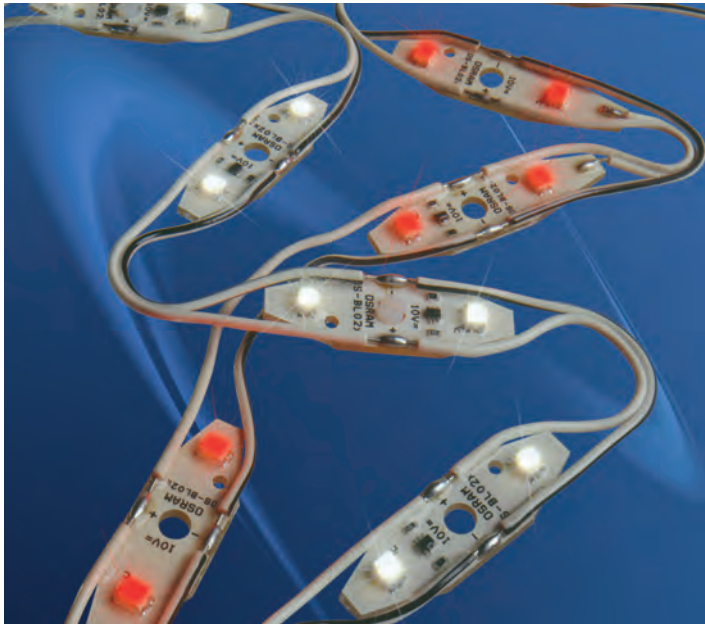


BACKlight 2G BL02

LED Modules



The OSRAM SYLVANIA BACKlight – an innovative alternative to neon and other conventional lighting.

OSRAM SYLVANIA BACKlight 2G BL02 LED chains are a durable, energy efficient, long life alternative to neon sources. Their flexible, chain configuration makes them ideally suited to fit contours and curves typical to channel letter signs. The chains are quickly and easily configured as a neon retrofit or in new signs. Available in super red, amber red, yellow, orange, green, blue and 5400K or 6500K white, there is a BACKlight 2G BL02 LED chain for a wide variety of colored applications.

Each BACKlight 2G BL02 LED board features two high brightness surface mount LEDs. Installation can be accomplished with the self adhesive foam backed tape or a center mounting hole that allows the chain to be installed with either M4 screws or snap-in connectors. The BACKlight 2G BL02 chains and available power supplies are UL listed in the Sign Component Manual (SAM) and will comply with applicable UL requirements when installed in existing signs.

Application Information

Applications

Backlighting advertising panels
Signs, channel letters, and displays
General lighting

- Ideal for channel letter signs
- Chain configuration allows for easy retrofit or installation in new signs
- Low power consumption – 1.1 to 1.4 watts per foot
- Long life
 - up to 100,000 hours (colors)
 - up to 50,000 hours (white)
- Conformally coated to protect against water damage due to moisture and condensation
- 120° beam angle for uniform light distribution on sign face
- Narrow width (<.50 in.) allows installation where space is limited
- 3 inch spacing between boards with flexible wire interconnects
- A complete reel contains 120 circuit boards with 2 LEDs
- There are two 15.75 foot modules per reel. Total length can be varied up to 31.5 feet
- Modules can be connected in parallel (limited by power source capacity and UL considerations)
- Listed in UL Sign Component Manual (SAM)
- Ideally paired with OPTOTRONIC 10.5Vdc power supplies (Literature Code ECS049)
- RoHS Compliant
- Easy installation with BACKlight tape (NAED 70125) or BACKlight installation aid (NAED 70296)

Product Offering

Product	Wattage (W)	Color
B2G/BL02S/W3-854 31.5 FT	44	White
B2G/BL02S/W3-865 31.5 FT	44	White
B2G/BL02/W2-865 31.5 FT	38	White
B2G/470/BL02/B1 31.5 FT	32	Blue
B2G/525/BL02/T2 31.5 FT	32	Green
B2G/587/BL02/Y2 31.5 FT	38	Yellow
B2G/606/BL02/O1 31.5 FT	38	Orange
B2G/617/BL02/A2 31.5 FT	38	Amber Red
B2G/633/BL02/S1 31.5 FT	38	Super Red

Features

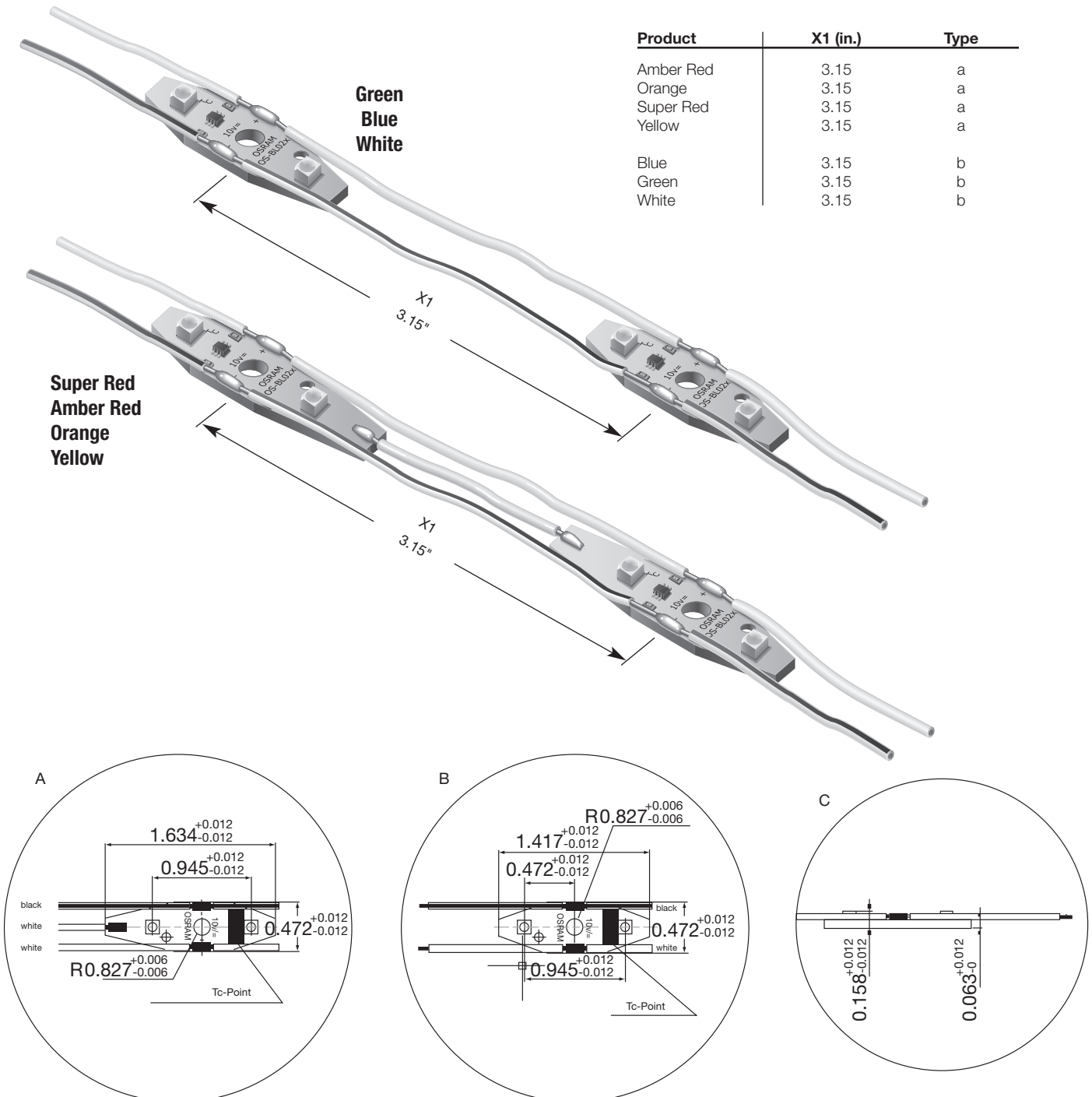
1. Small dimensions
2. Shock resistance
3. High color efficiency
4. Directional radiation characteristics
5. No IR/UV radiation

Maximum Ratings

Ordering Description	Color	Operating Temperature at Tc Point °C (°F) ^{1,2,3}	Storage Temperature °C (°F)	Voltage Range Vdc	Reverse Voltage Vdc
B2G/633/BL02/S1 31.5 FT	Super Red	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/617/BL02/A2 31.5 FT	Amber Red	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/606/BL02/O1 31.5 FT	Orange	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/587/BL02/Y2 31.5 FT	Yellow	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/525/BL02/T2 31.5 FT	Green	-20 to 75 (-4 to 167)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/470/BL02/B1 31.5 FT	Blue	-20 to 75 (-4 to 167)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/BL02ST/W2-865 31.5 FT	White	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/BL02S/W3-854 31.5 FT	White	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11
B2G/BL02S/W3-865 31.5 FT	White	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	10 to 11	11

- Temperature should be measured at the Tc point on the module.
- The maximum operating range of the Tc point (up to 75°C or 85°C depending on color) is to specify the absolute maximum Tc temperature without causing permanent damage to the LEDs.
- 100K hour service life for a Tc of 40°C for Red, Amber Red, Orange & Yellow. 50K hour service life for a Tc of 40°C for White.

Dimensions



Ordering and Specification Information*

Item Number	Ordering Abbreviation	Color	Reel Length (ft.)	Coupon Spacing (in.)	LED Load			Viewing Angle	No. of LEDs/Reel	LEDs/ft.	Wavelength (nm) Color Temp. (K)	Luminous Flux (lm)	Lm/Ft
					Watts	Volts (Vdc)	Current (Amps)						
70271	B2G/BL02S/W3-854 31.5	White	31.5	3.15	44	10.5	4.2	120°	240	8	5400K	880	28
70272	B2G/BL02S/W3-865 31.5	White	31.5	3.15	44	10.5	4.2	120°	240	8	6500K	880	28
70144	B2G/BL02/W2-865 31.5	White	31.5	3.15	38	10.5	3.6	120°	240	8	6500K	520	17
70239	B2G/470/BL02/B1 31.5	Blue	31.5	3.15	32	10.5	3.0	120°	240	8	470	100	3
70238	B2G/525/BL02/T2 31.5	Green	31.5	3.15	32	10.5	3.0	120°	240	8	525	430	14
70237	B2G/587/BL02/Y2 31.5 ¹	Yellow	31.5	3.15	38	10.5	3.6	120°	240	8	587	980	31
70236	B2G/606/BL02/O1 31.5 ¹	Orange	31.5	3.15	38	10.5	3.6	120°	240	8	606	980	31
70175	B2G/617/BL02/A2 31.5	Amber Red	31.5	3.15	38	10.5	3.6	120°	240	8	617	1180	37.5
70235	B2G/633/BL02/S1 31.5	Super Red	31.5	3.15	38	10.5	3.6	120°	240	8	633	490	16

*All Information relates to entire reel of 240 LEDs.

Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process.

¹ Contact OSRAM SYLVANIA for product availability.

Power Supply Ordering Information

Item Number	Ordering Description	Color	OPTOTRONIC 25W (51505)			OPTOTRONIC 50W (51508, 51509)		
			Maximum Length (ft.)	LED Load Watts	No. of Modules	Maximum Length (ft.)	LED Load Watts	No. of Modules
70271	B2G/BL02S/W3-854 31.5	White	17.8	24.9	1.1	35.5	49.7	2.2
70272	B2G/BL02S/W3-865 31.5	White	17.8	24.9	1.1	35.5	49.7	2.2
70144	B2G/BL02/W2-865 31.5	White	20	24	1.3	41	50	2.6
70239	B2G/470/BL02/B1 31.5	Blue	24	24	1.5	49	50	3.1
70238	B2G/525/BL02/T2 31.5	Green	24	24	1.5	49	50	3.1
70237	B2G/587/BL02/Y2 31.5	Yellow	20	24	1.3	41	50	2.6
70236	B2G/606/BL02/O1 31.5	Orange	20	24	1.3	41	50	2.6
70175	B2G/617/BL02/A1 31.5	Amber Red	20	24	1.3	41	50	2.6
70235	B2G/633/BL02/S1 31.5	Super Red	20	24	1.3	41	50	2.6

Note: Maximum length for a fully extended module. Derate the LED load for exterior or remote mount applications.

Note: Each reel contains 2 modules.

Packaging Information

	Length	Width	Height
Each	13.25"	13.25"	0.88"
Case	13.75"	13.75"	4.53"

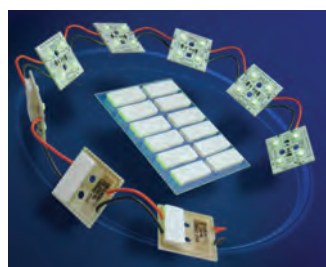
Ordering Guide

BACKlight 2G	/	633	/	BL02	/	S1
BACKlight Second Generation Module		Wavelength 633 nm		ID No.		Color Code S = Super Red

Accessories



NAED **Ordering Description**
70296 BL-T BT60



70125 BACKlite Tape/OS/LM03A

Safety Information

WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION.

TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE ATTEMPTING INSTALLATION OF THE POWER SUPPLIES AND/OR MODULES.

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriter's Laboratories (UL) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction.

These instructions are guidelines for installation of OSRAM LED modules and power supplies. Installation requirements may vary depending on the application. Licensed electricians should provide all installation services for connection of both primary and secondary (input/output) of the power supplies.

FOR COMPLETE SAFETY INFORMATION, PLEASE SEE THE BACKlight INSTALLATION GUIDE (LED053).

OSRAM SYLVANIA
National Customer
Service and Sales Center
18725 N. Union Street
Westfield, IN 46074

Industrial Commercial

Phone: 1-800-255-5042
Fax: 1-800-255-5043

National Accounts

Phone: 1-800-562-4671
Fax: 1-800-562-4674

OEM/Specialty Markets

Phone: 1-800-762-7191
Fax: 1-800-762-7192

Display/Optic

Phone: 1-888-677-2627
Fax: 1-800-762-7192

In Canada
OSRAM SYLVANIA LTD.
Headquarters
2001 Drew Road
Mississauga, ON L5S 1S4

Industrial Commercial

Phone: 1-800-263-2852
Fax: 1-800-667-6772

Special Markets

Phone: 1-800-265-2852
Fax: 1-800-667-6772

TOPLED is a registered trademark of Siemens Aktiengesellschaft Corporation.
OPTOTRONIC is a registered trademark of OSRAM GmbH used under license.
OSRAM is a registered trademark of OSRAM GmbH.
Specifications subject to change without notice.

Visit our website: www.sylvania.com