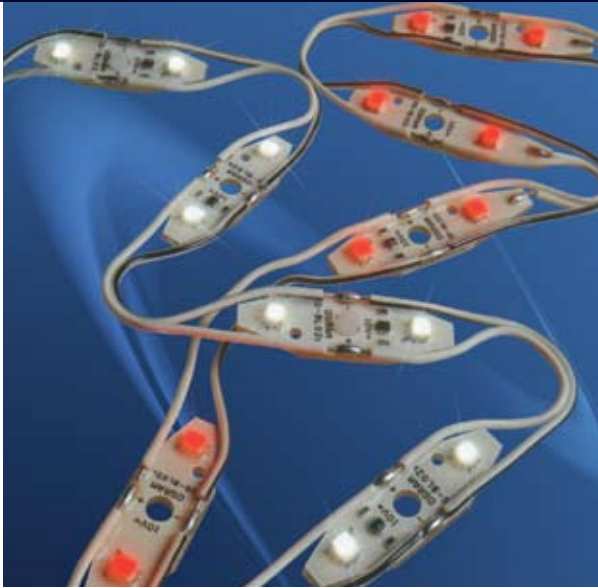


BACKlight 2G BL02 LED Module



SYLVANIA BACKlight BL02 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, orange, yellow, green, blue and 6500k white, there is a BACKlight 2G BL02 chain for a wide variety of applications.

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

Key Features & Benefits

- Ideal for channel letter signs
- Chain design allows for easy retrofit or installation in new signs
- Long Life up to 100,000 hours for colors and 50,000 hours for white when temperature at Tc point is maintained at 40°C
- Listed in UL Sign Components Manual (SAM)
- Modules can be connected in parallel (limited by power supply capacity and UL considerations)
- RoHS Compliant
- 120° beam angle for uniform light distribution
- Low power consumption – 1.1 to 1.4 watts per foot

Product Offering

Ordering Description	Wattage (W)	Color
B2G/BL02L/W3F-865 47.24 FT	22	6500K White
B2G/BL02S/W3-865 31.5 FT	22	6500K White
B2G/BL02/W2-865 31.5 FT	19	6500K White
B2G/633/BL02/S1 31.5 FT	19	Super Red
B2G/617/BL02/A2 31.5 FT	19	Amber Red
B2G/606/BL02/O1 31.5 FT	19	Orange
B2G/587/BL02/Y2 31.5 FT	19	Yellow
B2G/525/BL02/T2 31.5 FT	16	Green
B2G/470/BL02/B1 31.5 FT	16	Blue

Application Information

Applications

Backlighting advertising panels
Signs, channel letters, displays
General lighting

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	Date

Ordering Information

Item Number	Ordering Abbreviation	Module Length (ft)**	Board Spacing (in)	No. of LEDs	Power (W)	Voltage (Vdc)	Current (A)	Color	Color Temp (K) Wavelength (nm)	Initial Lumens (lm)*	Lumens/ft	Watts/ft
70278	B2G/BL02L/W3F-865	47.24 FT	23.62***	120	22	10.5	2.1	White	6500	440	19	0.9
70272	B2G/BL02S/W3-865	31.5 FT	15.75	120	22	10.5	2.1	White	6500	440	28	1.4
70144	B2G/BL02/W2-865	31.5 FT	15.75	120	19	10.5	1.8	White	6500	260	17	1.2
70235	B2G/633/BL02/S1	31.5 FT	15.75	120	19	10.5	1.8	Super Red	633	245	16	1.2
70175	B2G/617/BL02/A2	31.5 FT	15.75	120	19	10.5	1.8	Amber Red	617	590	37	1.2
70236	B2G/606/BL02/O1	31.5 FT	15.75	120	19	10.5	1.8	Orange	606	490	31	1.2
70237	B2G/587/BL02/Y2	31.5 FT	15.75	120	19	10.5	1.8	Yellow	587	490	31	1.2
70238	B2G/525/BL02/T2	31.5 FT	15.75	120	16	10.5	1.5	Green	525	215	14	1.0
70239	B2G/470/BL02/B1	31.5 FT	15.75	120	16	10.5	1.5	Blue	470	50	3	1.0

*All data is related to entire module measured at Tc point of 25°C. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process.

End users need to take into account the lumen depreciation as the temperature rises with various thermal management solutions installed.

**There are two modules per reel. Data is for a single module of 120 LEDs.

*** NAED 70278 has a spacing between boards of 4 inches vs. 3 inches for all other B2G/BL02 products.

Ordering Guide

B2G	BL02L	W3F	865	47.24
Product Name	Module Name	Color Code	CRI and Color Temp	Reel Length
B2G	470	BL02	B1	31.5
Product Name	Wavelength (nm)	Module Name	Color Code	Reel Length

Power Supply Information

LED Item Number	Ordering Description	Maximum Number of Modules/Power Supply			
		70278 & 70272	70144	70239 & 70238	70237, 70236, 70175 & 70235
51505	OT25/120/10	1.1	1.3	1.6	1.3
51508	OT50/120/10	2.3	2.6	3.1	2.6
51509	OT50/120-277	2.3	2.6	3.1	2.6

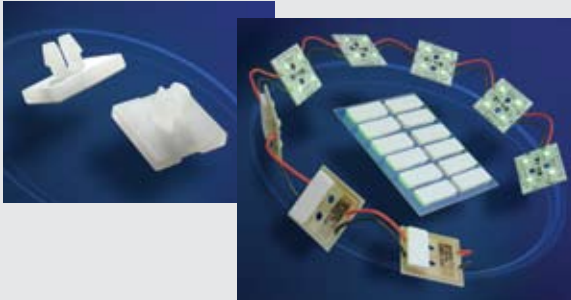
Minimum and Maximum Ratings

Parameter	Symbol	Values
Operating Temperature at Tc Point (70238 green and 70239)	T_{op}	-20... +75°C (-4 to +167°F)
Operating Temperature at Tc Point (all other colors)	T_{op}	-20... +85°C (-4 to +185°F)
Storage Temperature (all colors)	T_{stg}	-20... +85°C (-22 to +185°F)
Voltage Range Vdc (all colors)	V_{max}	10 to 11
Reverse Voltage Vdc	V_R	11

Notes:

1. Exceeding maximum ratings may damage the LED module and cause potential safety hazards.
2. Elevated operating temperatures can be expected to negatively impact the service life in terms of lumen output.

Accessories



Item Number	Ordering Abbreviaion
70296	BL-T60
70125	BACKlight Tape/OS/LMo3A

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.

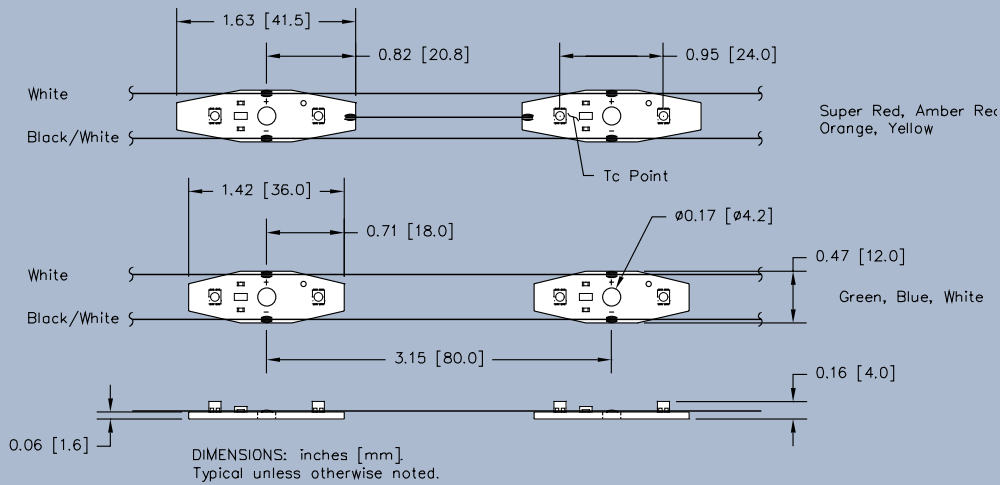
Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriter's Laboratories (UL) safety standards for the installation, location and application may cause serious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

These instructions are guidelines for installation of SYLVANIA 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.

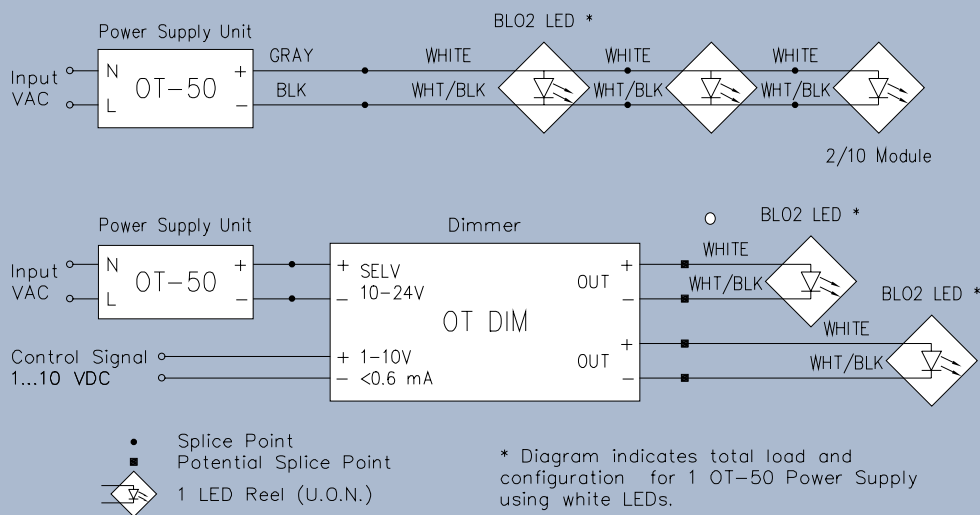
Assembly Information

1. Adhesive mounting tape is available for easy installation on a clean surface (BACKlight TAPE/OS/LM03A NAED 70125).
2. Mounting of the LED module may also be performed with screws (#4 round head screws & plastic washer) by using the 5/32" (4mm) holes in the circuit board. See the "BACKlight 2G Installation Guide" LED032 for more details.
3. Care should be taken not to over torque the mounting screws and damage the circuit board.
4. To connect the LED modules with each other or with an OPTOTRONIC Power Supply we recommend standard wire connectors. A push in style permanent locking connector is available (BACKlight Connector/OS/LM03A/Conn NAED 70126).
5. De-rate maximum LED load for remote mounting or exterior applications. Application Note: Determining the maximum load on a constant voltage power power (LED026).

Assembly Diagram



Wiring Diagram



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

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/Special 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

Visit our website: www.sylvania.com