

AB-FH Ultra Slim Rope Light Series

Ultra slim 5mm, IP68 flexible, diffused rope light in 12V/24V DC - Single color, RGB, and RGBW options.



Features:

- UL listed
- IP68 waterproof rating
- 5mm width
- Storage temperature -40°C~+70°C
- Operating temperature -20°C~+50°C
- Environment humidity 40-90%RH

Applications:

- Conference/meeting rooms
- Hospitals
- Commercial/ residential buildings
- Entertainment lighting
- Hotels



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Part number naming system:

A B – F H V V V K K – L L L W L – X A 1

V V V – Voltage (volt) of the light strip (012=12V, 024=24V)

K K – Color/CCT (30 – 3000K, 40 – 4000K, 63 – 6300K, 06 – RGB, 08 – RGBW)

L L L – Light strip length (unit: inch);

For 12V, length selection starts from minimum 0.98 inches (25mm), with the increment of 0.95 inches (25mm), maximum available length is 197 inches.

For 24V, length selection starts from minimum 1.97 inches (50 mm), with the increment of 1.97 inches (50mm), maximum available length is 394 inches.

W L – Lead length (unit: inch); standard length is 12 inches.

X – CRI (8 – 80, 9 – 90, X – not applicable)

Ax – Version (Internal Code)

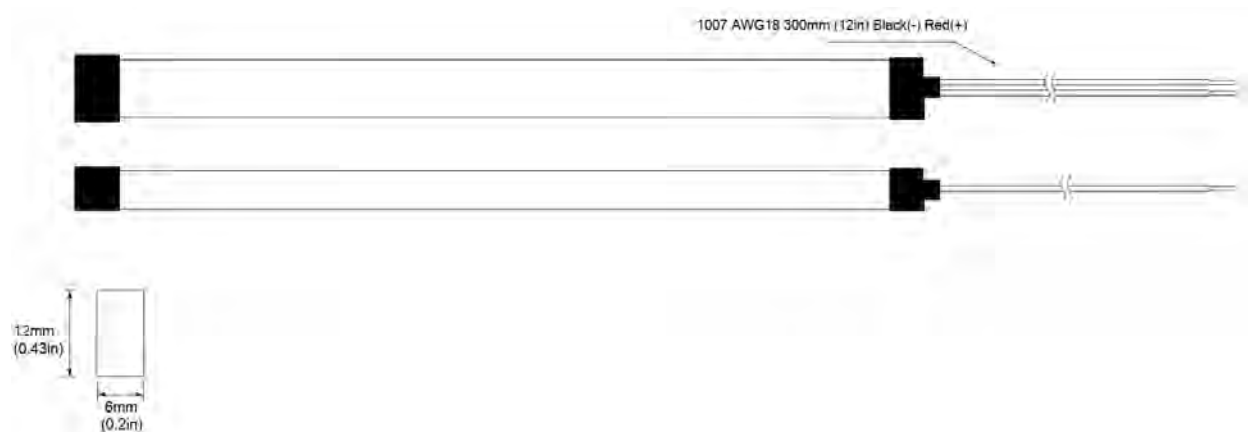
For example, part number below calls out a 5mm ultra slim, side-emitting flexible light with IP68 rating, 24V DC in 3000K CCT, CRI80, 197 inches long with 12 inches wire lead.

A B – F H 0 2 4 3 0 – 1 9 7 1 2 – 8 A 1

Outline Dimension:

Single Color:

DC 12V/DC 24V:



RGB Color:

DC 12V/DC 24V:



1

RGBW Color:

DC 12V/DC 24V:



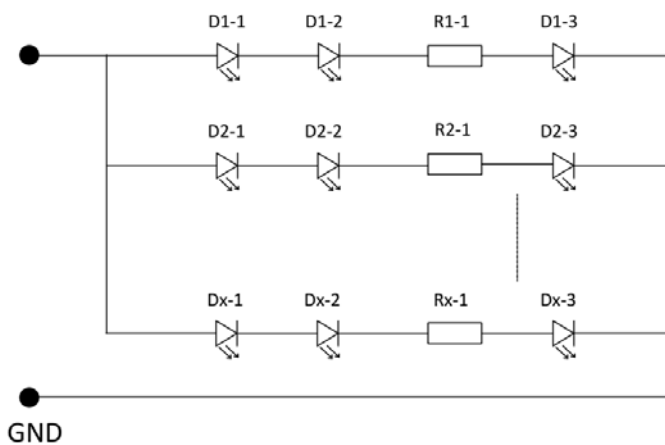
¹ Silicon tube: durometer, shore A 60~65 or equivalent. Color: White

Schematic Diagram:

Single Color:

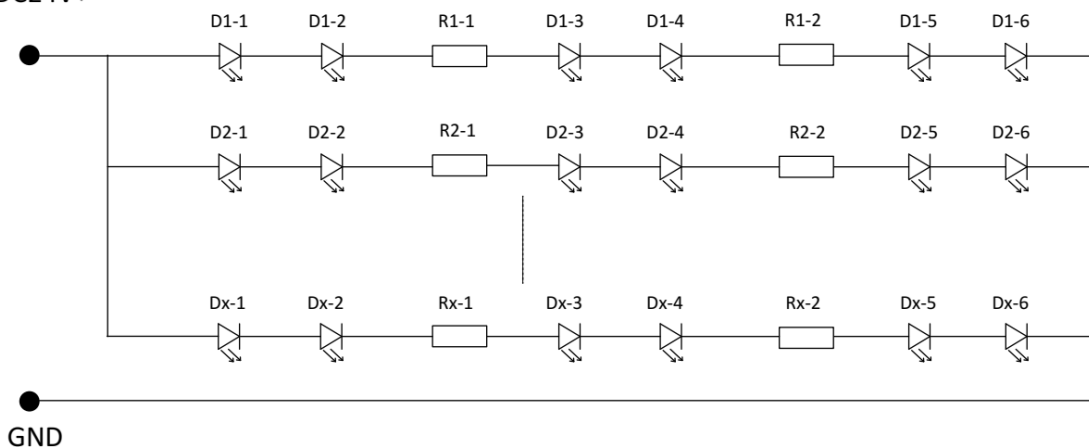
DC 12V

DC12V+



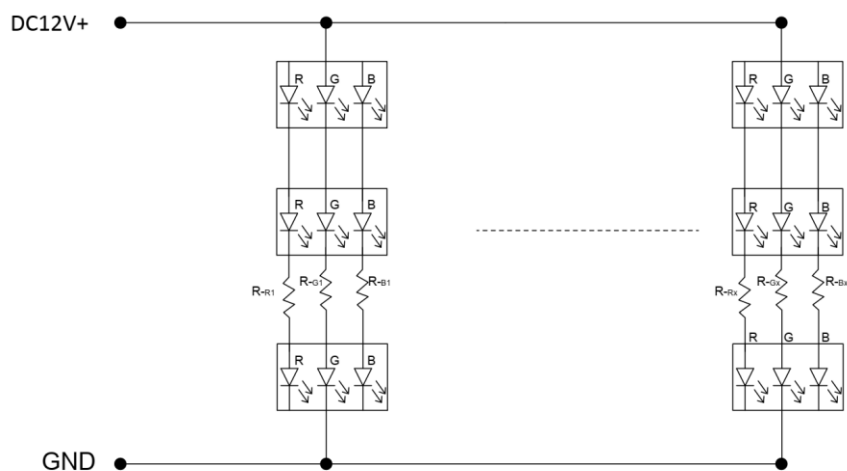
DC 24V

DC24V+

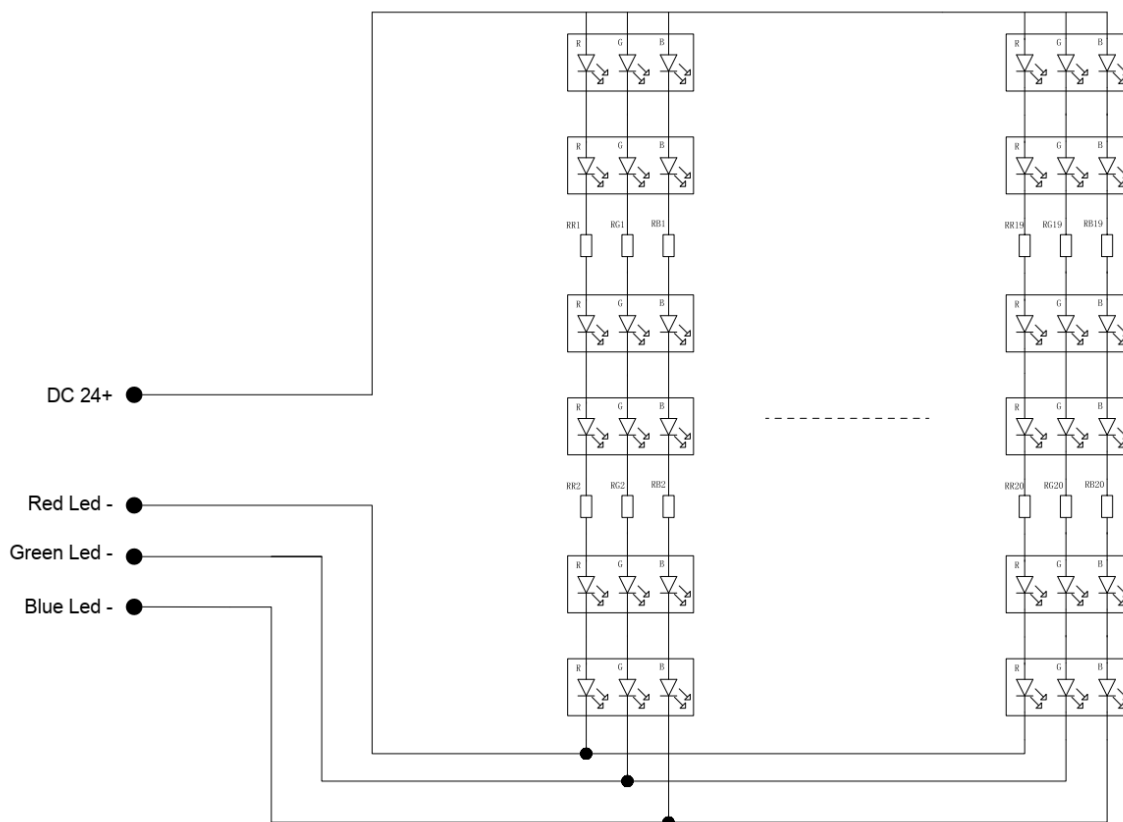


RGB Color:

DC 12V:

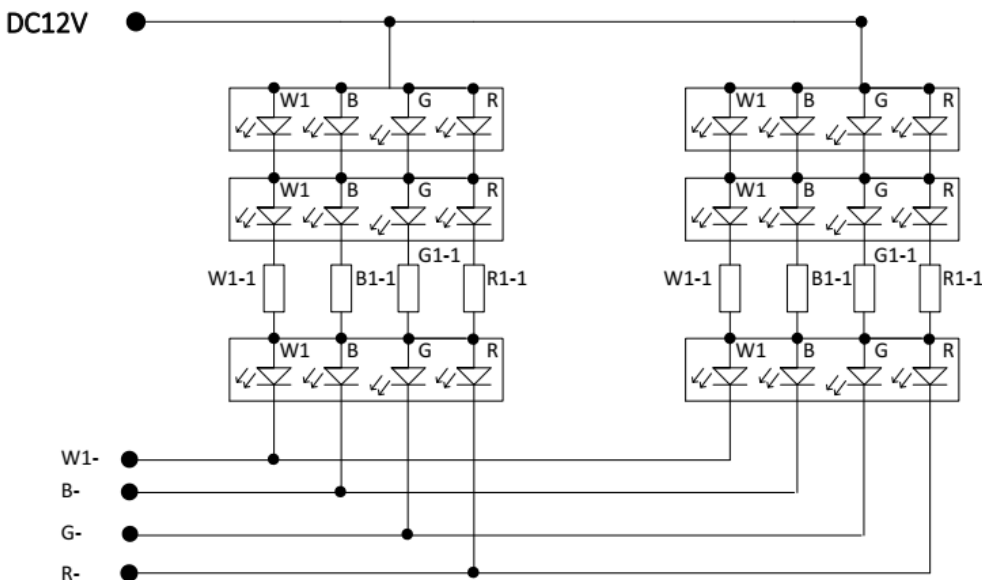


DC 24V:

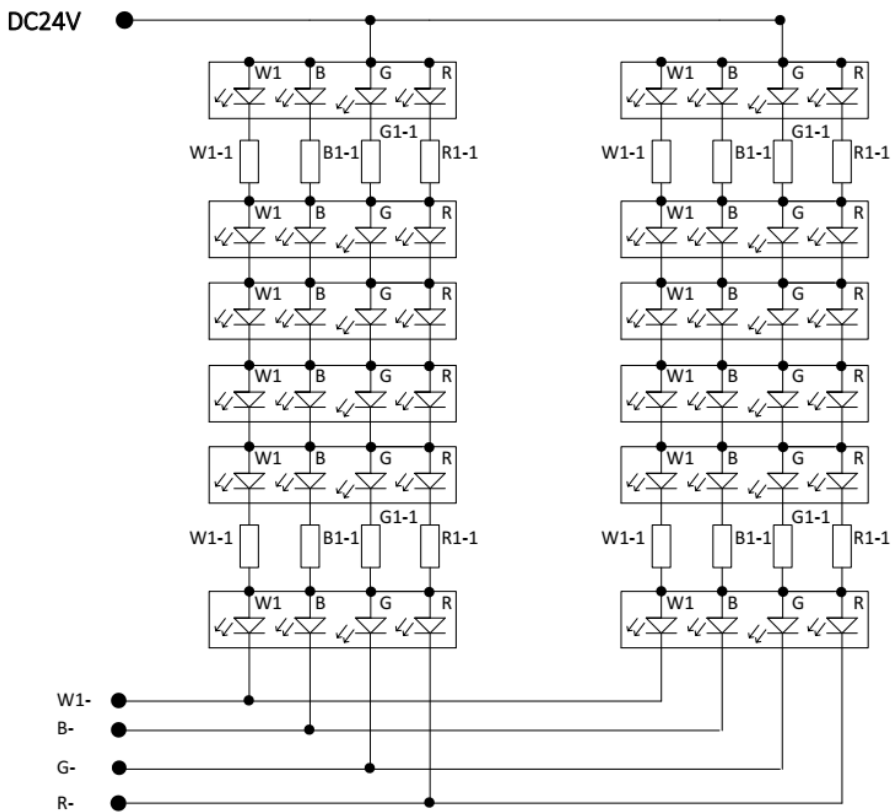


RGBW Color:

DC 12V:



DC 24V



Characteristics:

Table 1. Configurations for AB-FH Ultra Slim Rope Light Series.

OPERATING VOLTAGE (V)	CURRENT (A/m)	POWER (W/m)	LENGTH ² m (inch)	LED COUNT/m
12	White/Green/Blue: 0.66	8	5 (197)	120
	Red/Amber: 0.83	10		96
	RGB: 1.16	14		96 + 96
	RGBW: 1.4	17		
24	White/Green/Blue: 0.33	8	5 (197)	120
	Red/Amber: 0.41	10		96
	RGB: 0.58	14		96 + 96
	RGBW: 0.7	17		

Table 2. Product performance of AB-FH Ultra Slim Rope Light Series at T=25 degree C.

PART NUMBER	CCT/ WAVELENGTH	LUMINOUS FLUX ³ (lm/m)	LUMINOUS EFFICACY (lm/W)	CRI
AB-FH012KK ⁴ -19712-XA1 AB-FH024KK-19712-XA1	30: 3000K	320	40	>80
	40: 4000K			
	63: 6300K			
	RD: Red 620-625nm	100	10	/
	GR: Green 520-525nm	240	30	/
AB-FH01206-19712-XA1 AB-FH02406-19712-XA1	BL: Blue 440-450nm	70	7	/
	AM: Amber 558-592nm	80	8	/
	RD: Red 620-635nm	46	18	/
	GR: Green 520-525nm	138	30	/
	BL: Blue 440-450nm	32	7	/
AB-FH01208-19712-8Ax ⁵ AB-FH02408-19712-8Ax	RD: Red 620-635nm	46	18	/
	GR: Green 520-525nm	138	30	/
	BL: Blue 440-450nm	32	7	/
	27: 2700K	120	40	>80
	30: 3000K			
	40: 4000K			
	50: 5000K			
	65: 6500K			

² Standard unit length: 5m or 10m/roll, for custom length, please contact aboc@americanbrightled.com.

³ Luminous flux $\pm 10\%$ is allowed.

⁴ KK - Color/CCT (30 – 3000K, 40 – 4000K, 63 – 6300K CCT, 06 – RGB)

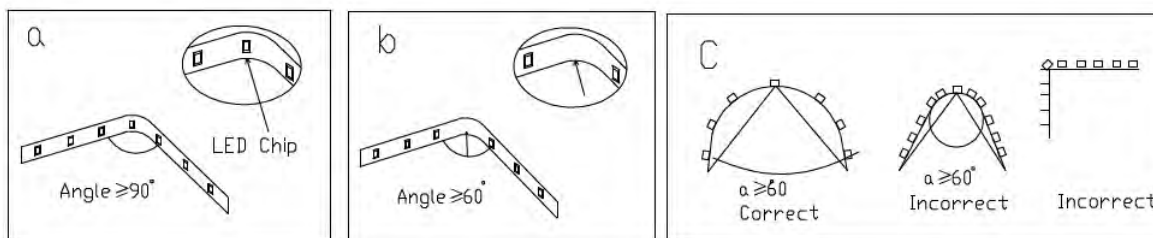
⁵ x – 1- 3000K CCT, 2 - 4000K CCT, for other color temperature, please contact aboc@americanbrightled.com.

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Optional Mounting Accessories:

Please refer to spec "[Accessories For Flexible Light.](#)"

Installation Instructions:

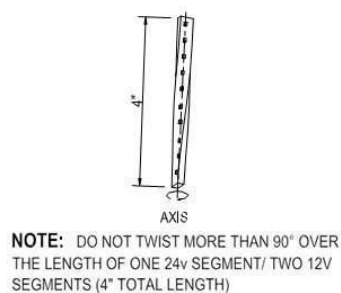
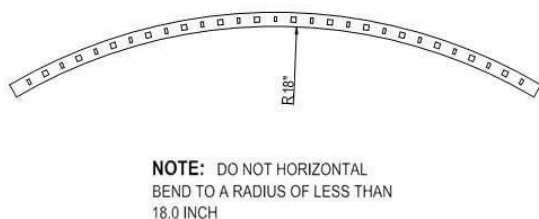
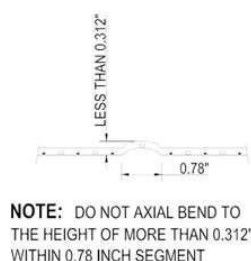
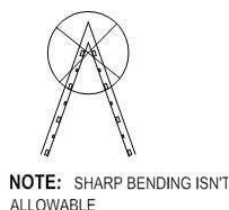
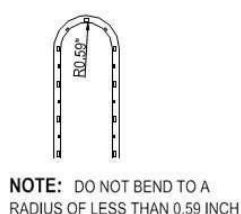


a: use an angle greater or equal to 90 degrees when there is an LED chip on the corner while placing, the strip in a concave position (Angle ≥ 90 degree)

b: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing, the strip in a concave position (Angle ≥ 60 degree)

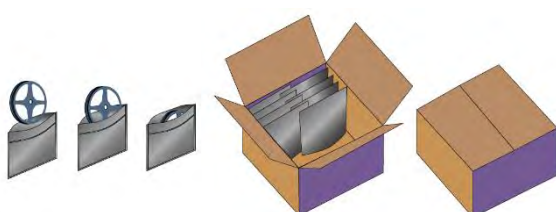
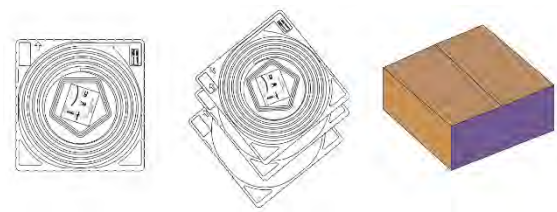
c: use an angle greater or equal to 60 degrees when there is an LED chip on the corner while placing the strip in a concave position (Angle ≥ 60 degree) In the convex position the angle should not reach, 90 degrees. See above diagram.

Maximum flexibility precaution:



Packaging:

Table 3. Packaging information

Model	QTY ⁶	Image
AB-FA series AB-FC series AB-FD series	1 roll/per ESD bag 10 bags/carton	
AB-FB series AB-FF series AB-FH series	1 roll/per tray 10 trays/carton	

⁶ Standard unit length: 5m or 10m/roll, 1 roll/bag. QTY/bag varies per different unit lengths.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[American Bright LED:](#)

[AB-FH01206-19712-XA1](#) [AB-FH01208-19712-8A1](#) [AB-FH01230-19712-8A1](#) [AB-FH01240-19712-8A1](#) [AB-FH01250-19712-8A1](#) [AB-FH01265-19712-8A1](#) [AB-FH012BL-19712-8A1](#) [AB-FH012BL-19712-XA1](#) [AB-FH02406-19712-XA1](#) [AB-FH02408-19712-8A1](#) [AB-FH02430-19712-8A1](#) [AB-FH02440-19712-8A1](#) [AB-FH02450-19712-8A1](#) [AB-FH02465-19712-8A1](#) [AB-FH024BL-19712-8A1](#) [AB-FH024BL-19712-XA1](#) [AB-FH005I4-11812-XA5-12S](#) [AB-FH01206-19712-XA1-12S](#) [AB-FH01208-19712-8A1-12S](#) [AB-FH01230-19712-8A1-12S](#) [AB-FH01240-19712-8A1-12S](#) [AB-FH01250-19712-8A1-12S](#) [AB-FH01265-19712-8A1-12S](#) [AB-FH02406-19712-XA1-12S](#) [AB-FH02408-19712-8A1-12S](#) [AB-FH02430-19712-8A1-12S](#) [AB-FH02440-19712-8A1-12S](#) [AB-FH02450-19712-8A1-12S](#) [AB-FH02465-19712-8A1-12S](#)