

AB-FC Flexible Tape Light Series

Flexible IP65 Tape light in 12V/24V DC - Single color, RGB, and RGBW options



Features:

- UL listed
- IP65 waterproof rating
- Top emitting, wide viewing angle 120°
- Storage temperature -40°C~+70°C
- Operating temperature -20°C~+55°C
- Environment humidity 40-90%RH

Applications:

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



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Part numbering system:

AB – FC V V V K K – L L L W L – X A 1

V V V – Voltage (volt) (012=12V, 024=24V)

K K – Color/CCT (27 – 2700K, 30 – 3000K, 40 – 4000K, 50 – 5000K, 63 – 6300K, 65 – 6500K CCT, RD – Red, GN – Green, BL – Blue, AM – Amber, 06 – RGB, 08 – RGBW)

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

Length selection of the strip:

	<u>12V</u>	<u>24V</u>
Single Color	Multiple of 25mm	Multiple of 50mm
RGB/RGBW	Multiple of 50mm	Multiple of 100mm

W L – Wire lead length (unit: inch); standard length is 12 inches. 00- No wire, no end cap

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

Ax – Version (Internal Code)

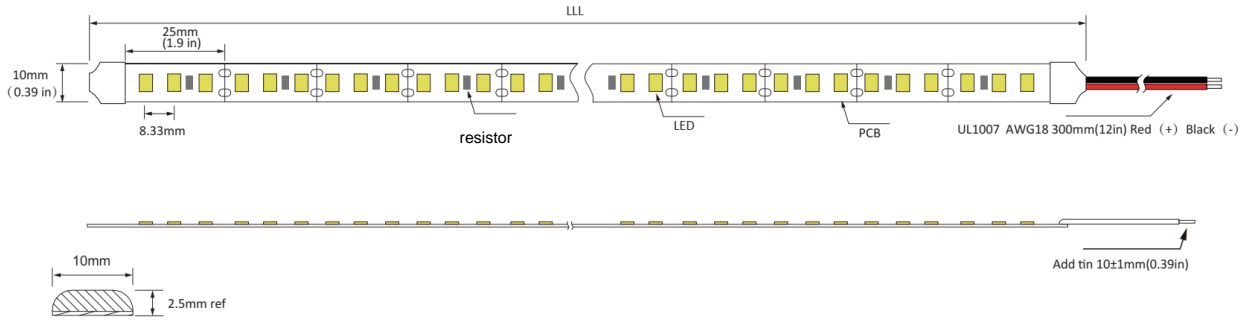
For example, part number below calls out a flexible tape light with IP65 rating, 24VDC in 3000K CCT, CRI 80, 197 inches long with 12 inches wire lead.

AB – FC 0 2 4 3 0 – 1 9 7 1 2 – 8 A 1

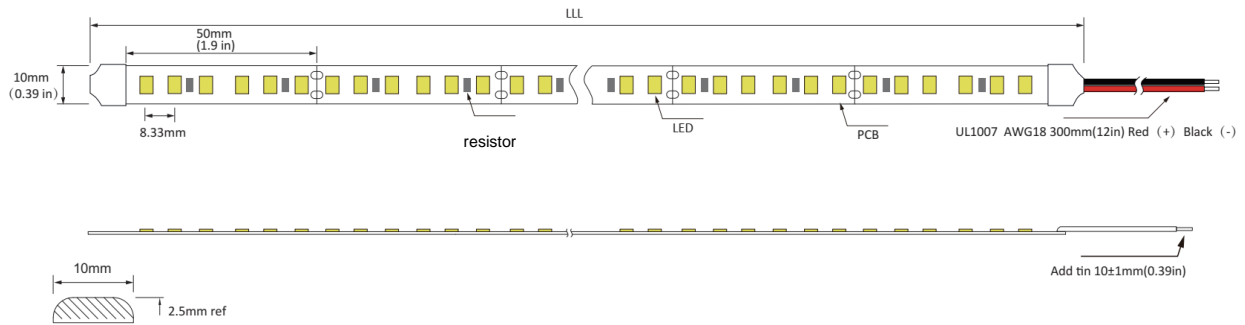
Outline Dimension:

Single Color:

DC 12V:

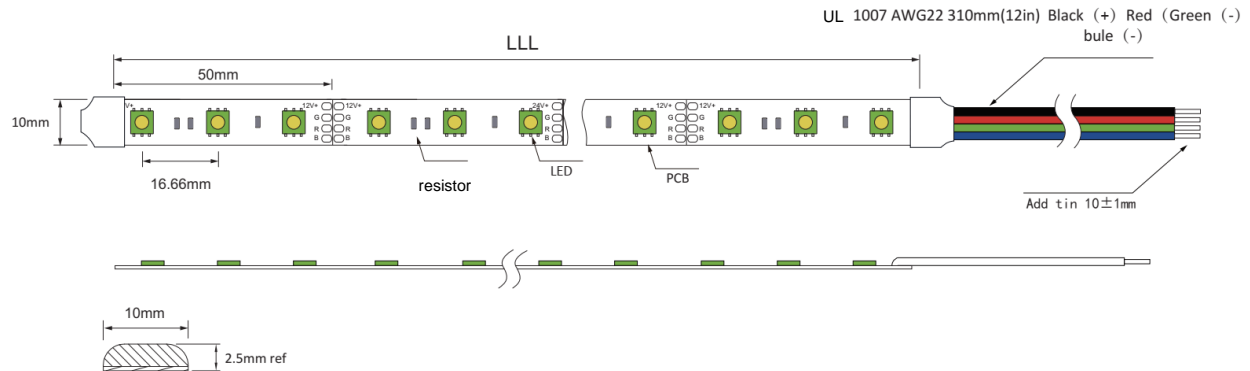


DC 24V:

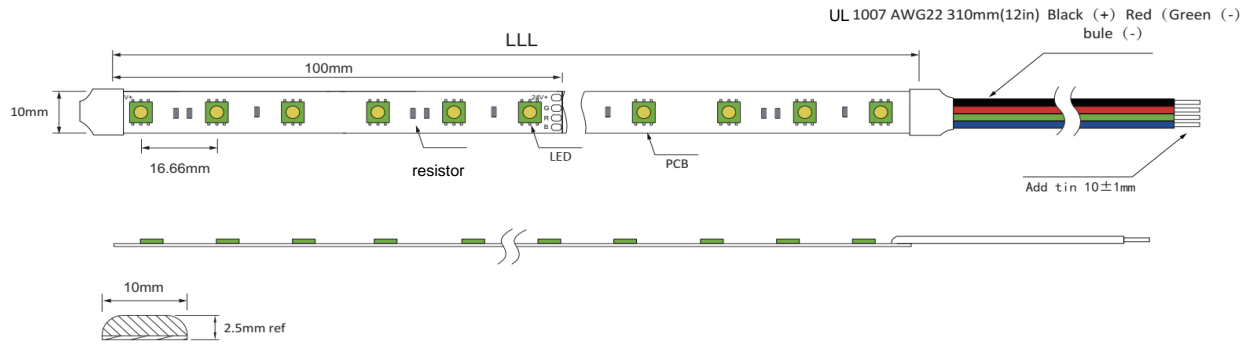


RGB Color:

DC 12V:

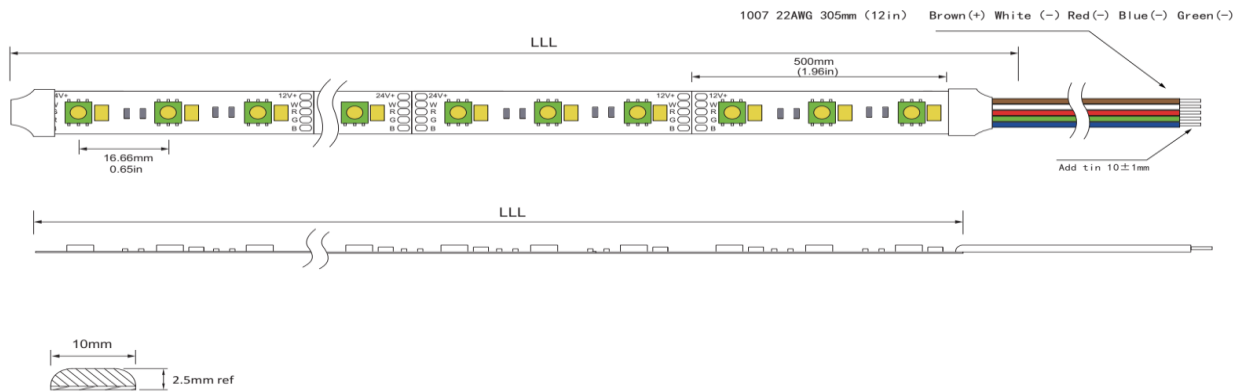


DC 24V:

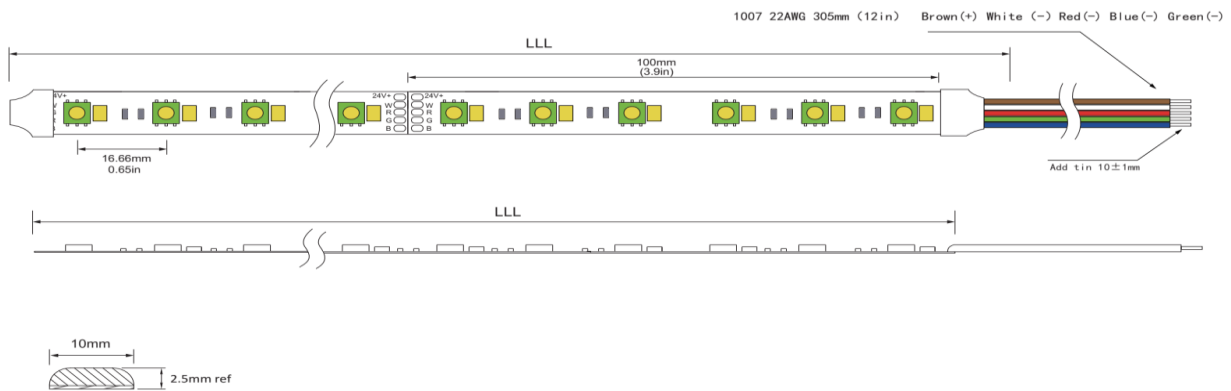


RGBW Color:

DC 12V:



DC 24V:



1,2,3

Cutting Mark is imprinted on the strip:

	<u>12V</u>	<u>24V</u>
Single Color	Every 25mm	Every 50mm
RGB/RGBW	Every 50mm	Every 100mm

¹ Heat shrinks on both ends.

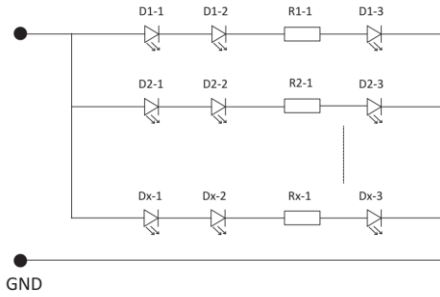
² Light strip comes with rear adhesive, 3M 300LSE.

³ Silicon coating: durometer, shore A 60~65 or equivalent. Color: Clear

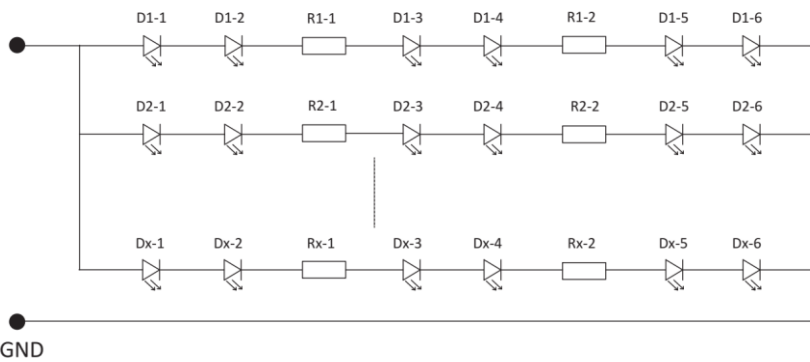
Schematic Diagram:

Single Color:

DC 12V:

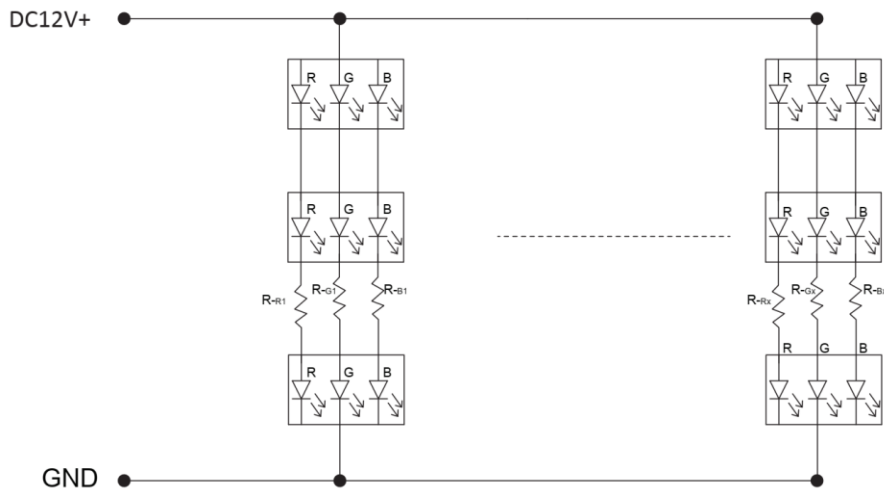


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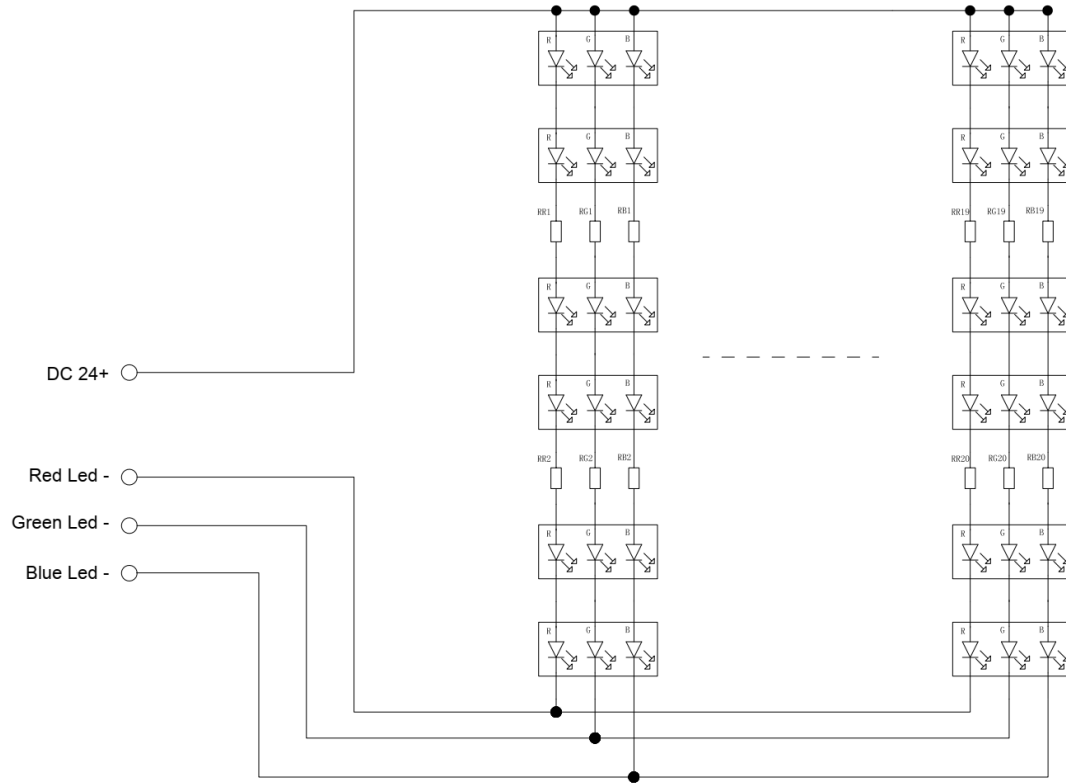


RGB Color:

DC 12V:



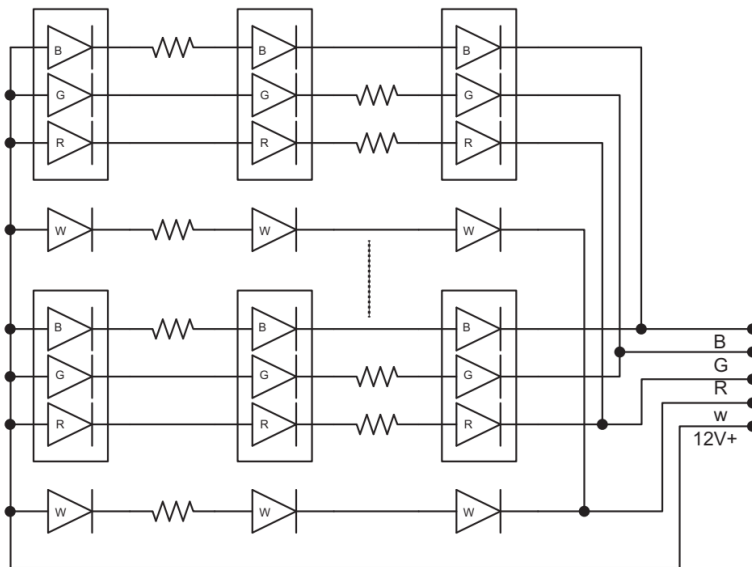
DC 24V:



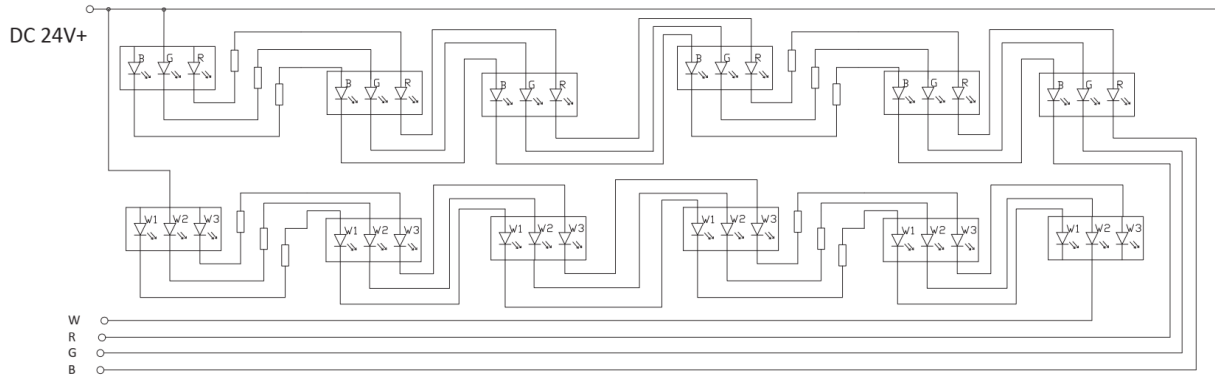
RGBW Color:

DC 12V:

DC12V+



DC 24V:



Characteristics:

Table 1. Configurations for AB-FC Flexible Tape Light Series.

OPERATING VOLTAGE (V)	CURRENT (A/m)	POWER (W/m)	LENGTH ⁴ m (inch)	LED COUNT/m
12	White/Green/Blue: 0.66	8	5 (197)	120
	Red/Amber: 0.83	10		60
	RGB: 0.83	10.1		60 RGB + 60 W
	RGBW: 1.18	14.2		
24	White/Green/Blue: 0.33	8	5 (197)	120
	Red/Amber: 0.41	10		60
	RGB: 0.41	10.1		60 RGB + 60 W
	RGBW: 0.59	14.2		

⁴ Standard length: 5m or 10m/roll, contact aboc@americanbrightled.com for custom length

AB-FC Flexible Tape Light Series

Table 2. Product performance of AB-FC Flexible Tape Light Series at T=25 degree C.

PART NUMBER	CCT/ WAVELENGTH	LUMINOUS FLUX ⁵ (lm/m)	LUMINOUS EFFICACY (lm/W)	CRI
AB-FC012KK ⁶ -197WL ⁷ -XA1 AB-FC024KK-197WL -XA1	30: 3000K	720	90	>80
	40: 4000K			
	63: 6300K			
	RD: Red 620-625nm			
	GN: Green 520-525nm	560	70	/
AB-FC01206-197WL-XA2 AB-FC02406-197WL-XA2	BL: Blue 440-450nm	168	21	/
	AM: Amber 558-592nm	190	19	/
	RD: Red 625-635nm	90	25	/
	GN: Green 520-535nm	248	73	/
	BL: Blue 465-475nm	56	18	/
AB-FC01208-197WL-8Ax ⁸ AB-FC02408-197WL-8Ax	RD: Red 620-630nm	81	/	/
	GN: Green 520-525nm	223	/	/
	BL: Blue 460-475nm	50.2	/	/
	27: 2700K	334	/	>80
	30: 3000K			
40: 4000K				
50: 5000K				
65: 6500K				

⁵ Luminous flux ±10% is allowed.

⁶ KK – Color/CCT (27 – 2700K, 30 – 3000K, 40 – 4000K, 50 – 5000K, 65 – 6500K CCT, 06 – RGB, 08 – RGBW)


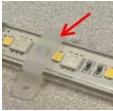


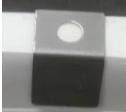
⁷ WL – Wire lead length (12 – 12”, 00 – 0” no end cap, no wire lead)

⁸ x – 1- 3000K CCT, 2-4000K CCT, for other color temperature, please contact aboc@americanbrightled.com.

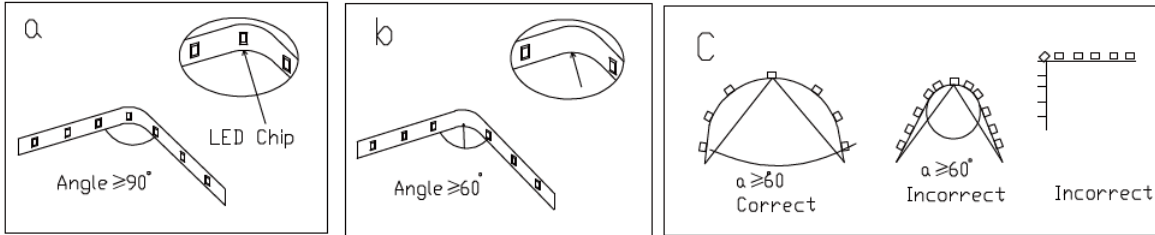
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Optional Mounting Accessories:

Table 3. Mounting Accessories

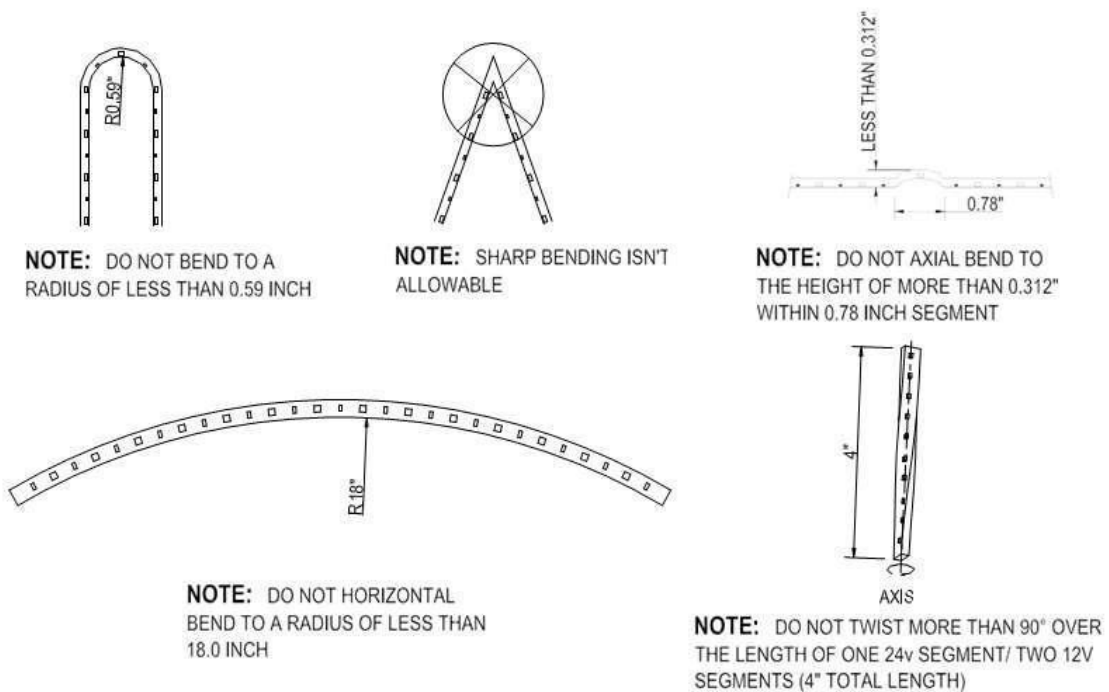
Item#	Size (mm)	Description	Compatible to	Image
AB-M-SS-10-12-L20	20x10x13	Stainless mounting bracket	AB-FF series	
AB-M-SI-RBLL-06	18.3x6x6	Silicon mounting bracket	AB-FA series AB-FC series AB-FD series	
AB-M-AL-20-09-1000	5000x15x10	Aluminum Channel	AB-FB series	
AB-M-SS-18-09-L20	20x18x10	Stainless mounting bracket	AB-FB series	
AB-M-SS-7-9-L7	7x6x12	Stainless mounting bracket	AB-FH series	

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:



NOTE: DO NOT BEND TO A RADIUS OF LESS THAN 0.59 INCH

NOTE: SHARP BENDING ISN'T ALLOWABLE

NOTE: DO NOT AXIAL BEND TO THE HEIGHT OF MORE THAN 0.312" WITHIN 0.78 INCH SEGMENT

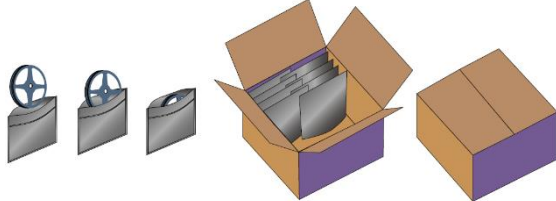
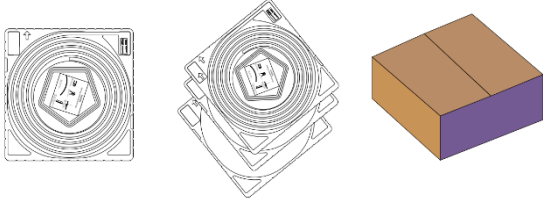
NOTE: DO NOT HORIZONTAL BEND TO A RADIUS OF LESS THAN 18.0 INCH

NOTE: DO NOT TWIST MORE THAN 90° OVER THE LENGTH OF ONE 24v SEGMENT/ TWO 12V SEGMENTS (4" TOTAL LENGTH)

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Packaging:

Table 4. Packaging information

Model	QTY ⁹	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	

⁹ Standard length: 5m or 10m/roll, 1 roll/bag. QTY/bag varies per different unit lengths.

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