Bridgelux® Solderless Holder

Product Data Sheet DS1340-1

FIVE YEAR Warranty™

Introduction

Solderless Holder

Bridgelux Solderless Holder Assemblies provide ultimate convenience for simple and reliable solderless connections to Bridgelux's LED Arrays.

Bridgelux Solderless Holder is a revolutionary light source system that integrates Bridgelux's V series COB technology with poke-in connectivity enabling solder-free installation. Bridgelux Solderless Holder and LED light sources streamline assembly processes, lower manufacturing cost, simplify luminaire design, improve light quality and increase design flexibility.

The assembly method provides fast and solderless connections to V Series and Vesta Series LED arrays which greatly improves production throughput and minimizes possible connection related defect and damage.

Features

- Solderless connection design
- Vertical snap-to-mate connection
- Positive-lock latching feature
- Rigid metal contacts for secure connections
- Springless connections that are less susceptible to thermal creep and stress relaxation
- More reliable, especially after thousands of use cycles, for long term reliability improvement
- Halogen-free UL94V-0

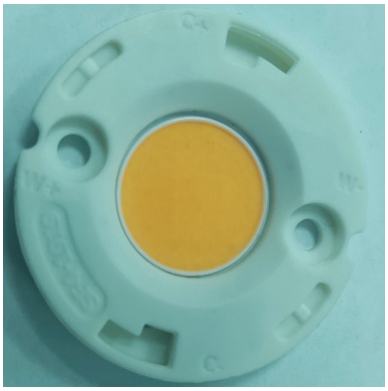
Benefits

- Minimizes handling of arrays during installation, greatly reducing the possibility of damage.
- Enables a fast, easy and reliable holder to the LED array
- Provides a slim design for space-limited applications. Minimizes risk of affecting light output
- Highly reliable, low contact resistance
- Meets RoHS requirements and is UL-flammability rated
- Provides design flexibility

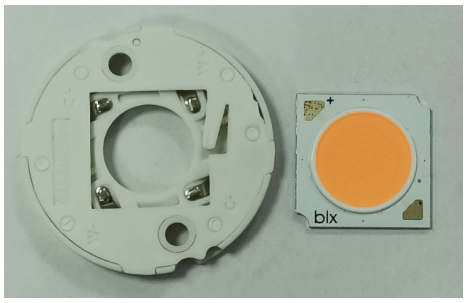
Contents

Product Feature Map

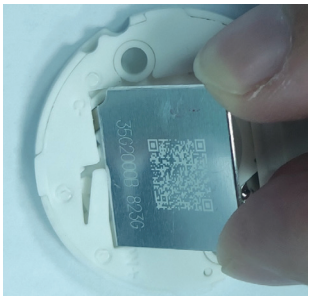
Bridgelux Solderless Holder is available for six different COB sizes (BXHD-1212, BXHD-1313, BXHD-1616, BXHD-1919, BXHD-2424, and BXHD-2828) and includes several features to simplify the design integration and manufacturing process.



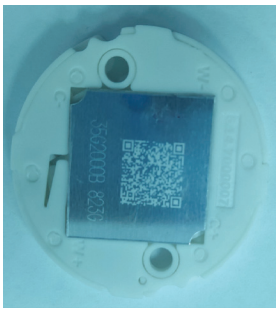
Easy Two-Step Assembly Process



Step 1. Check the positive contact.



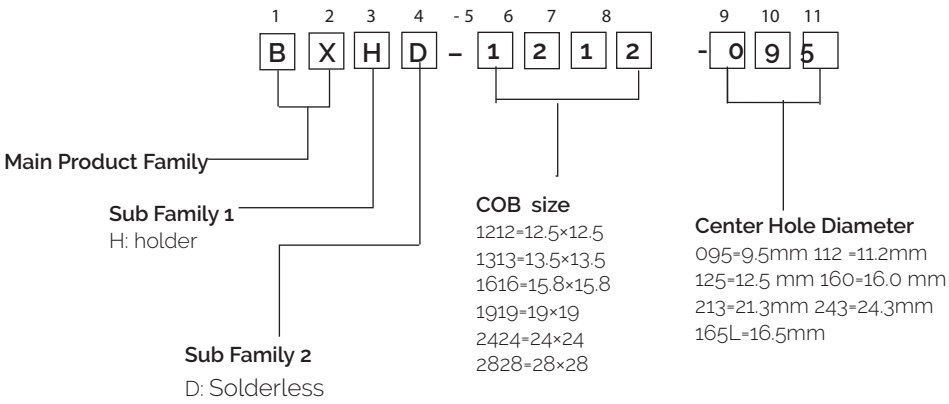
Step 2. Align substrate in the gap and push straight down into holder



Completed Array and holder (shown backside)

Product Nomenclature

The part number designation for Bridgelux Solderless Holder Assemblies is explained as follows.



Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide

Bridgelux Part Number	Array Size (mm x mm)	Center Hole Diameter (mm)	Bridgelux arrays
BXHD-1212-095	12.5 x 12.5	9.5	V6,V8,V3HD,V4HD,Vesta TW6
BXHD-1313-112	13.5 x 13.5	11.2	V10,V6HD
BXHD-1616-125	15.8 x 15.8	12.5	Vesta TW9
BXHD-1919-160	19 x 19	16.0	V13,V9HD ,Vesta TW13
BXHD-1919-165L	19 x 19	16.5	V13,V9HD ,Vesta TW13
BXHD-2424-213	24 x 24	21.3	V18,Vesta TW18
BXHD-2828-243	28 x 28	24.3	V22,Vesta TW22

Notes for Table 1:
1. Additional holder designs can be requested. Consult sales for more information.

Table 2: List of suitable conductor types, wire sizes and maximum insulation diameter

Conductor Type	Wire Size	Insulation Diameter (mm)
Solid,Stranded and tinned,or Stranded	AWG22	2.1mm maximum
	AWG20	
	AWG18	
	0.34mm$_2$	
	0.50mm$_2$	
	0.75mm$_2$	

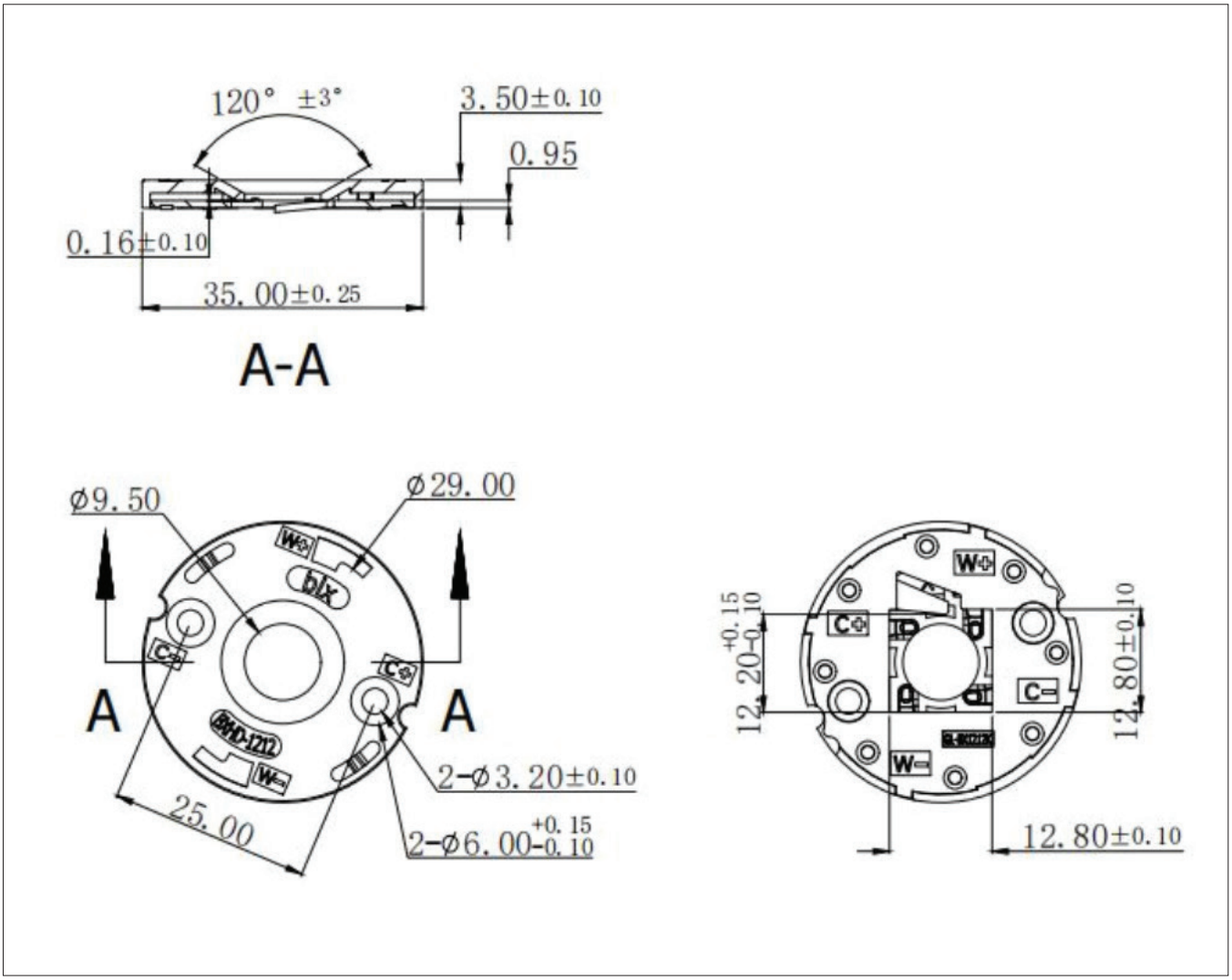
Notes for Table 2:
1. Additional holder designs can be requested. Consult Sales for more information

Table 3: Maximum Ratings

Parameter	Maximum Rating
Operating Temperature	-40˚C to +105˚C
Maximum Drive Current	3.6A
Maximum Voltage	72 V

Mechanical Dimensions

Figure 1: Drawing for BXHD-1212-095 holder

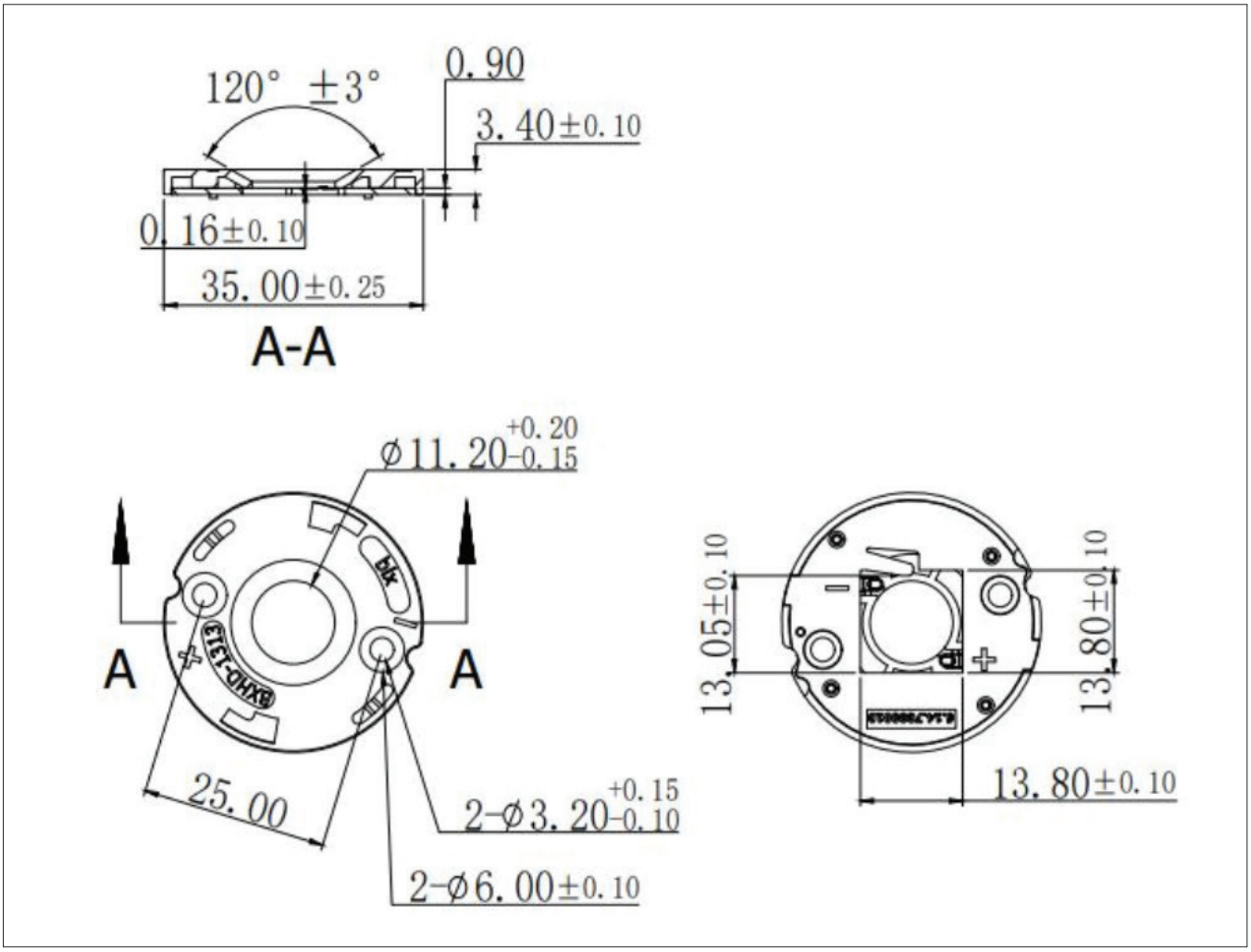


Notes for Figure 1:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Mechanical Dimensions

Figure 2: Drawing for BXHD-1313-112 holder

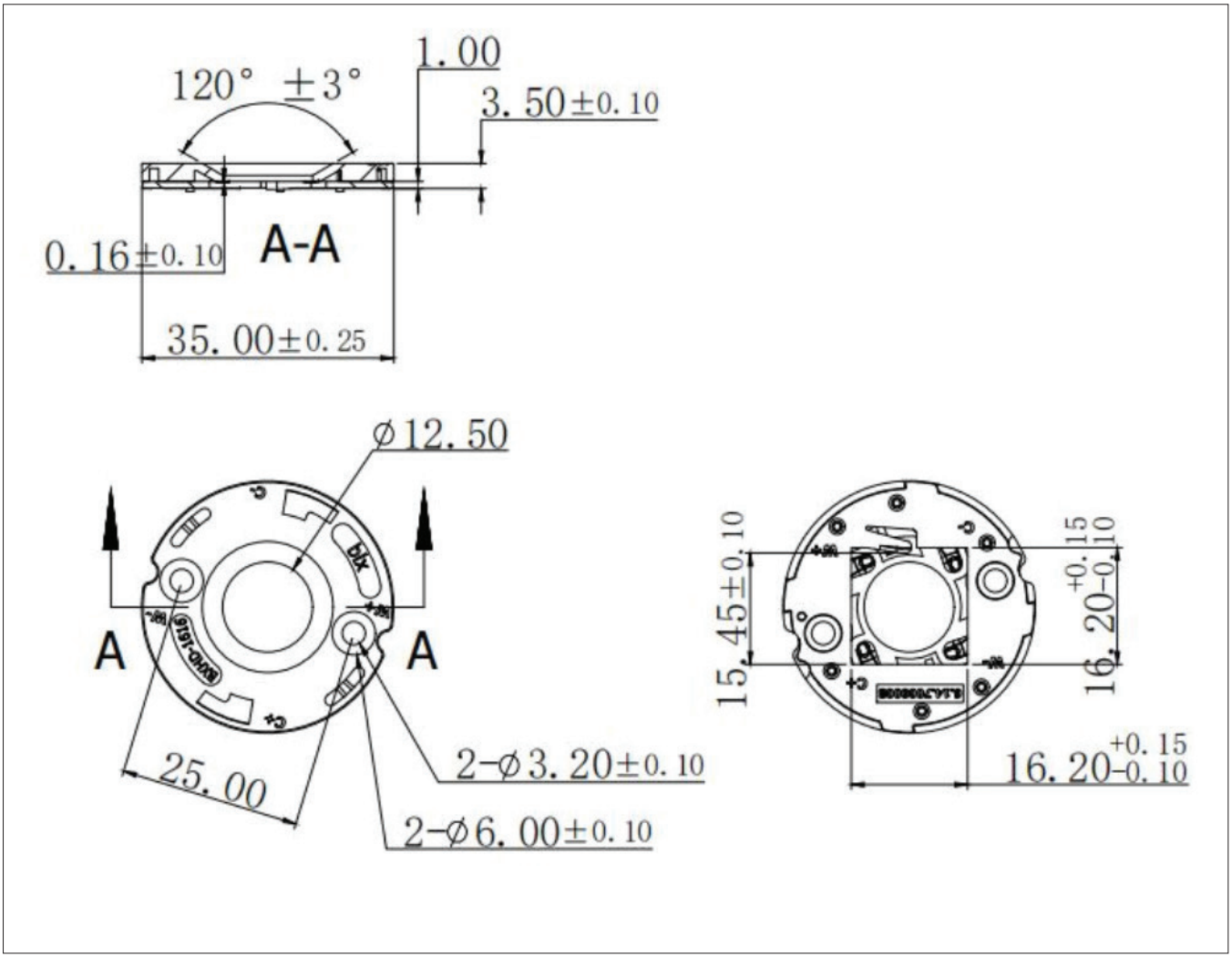


Notes for Figure 2:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Mechanical Dimensions

Figure 3: **Drawing for BXHD-1616-125 holder**

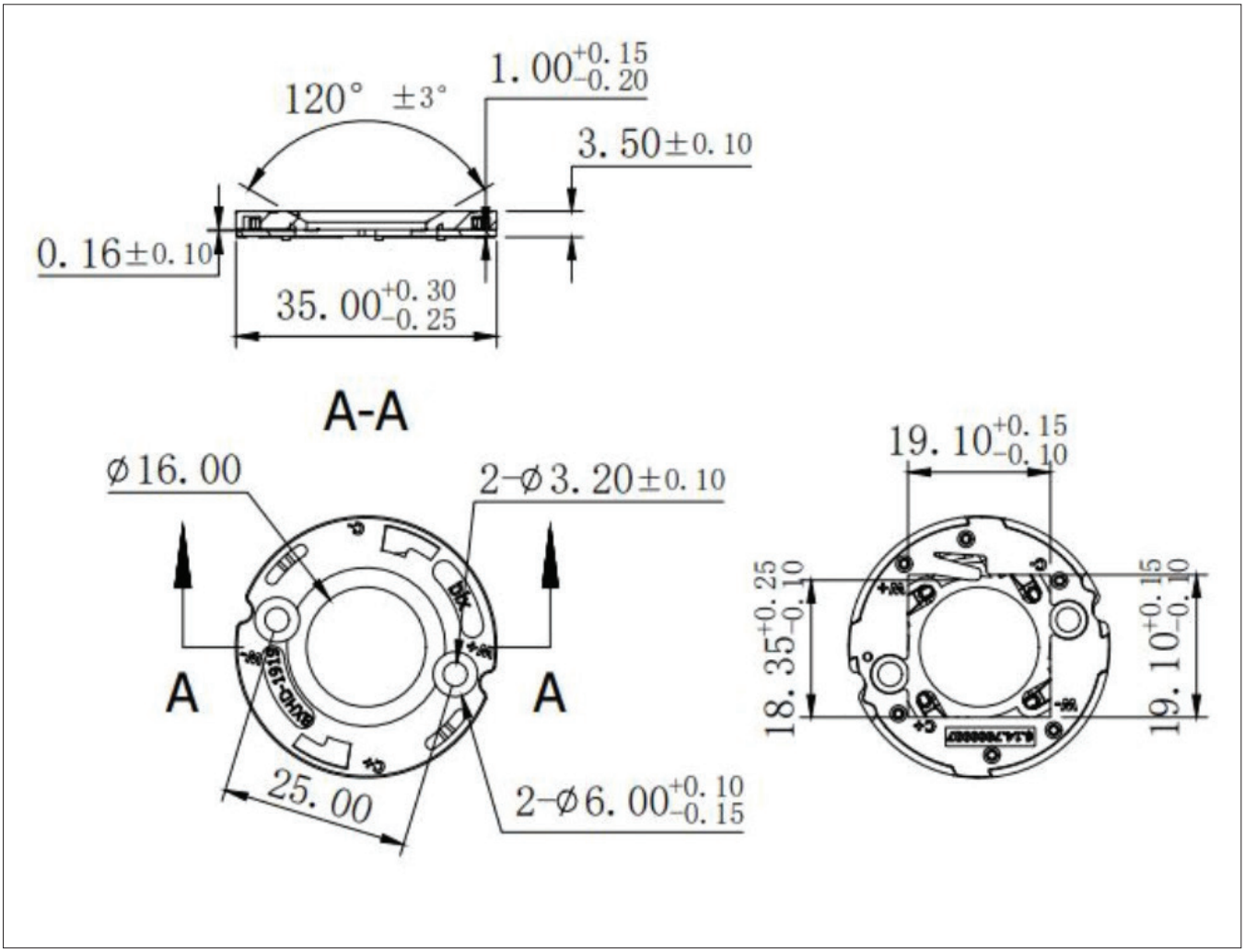


Notes for Figure 3:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Mechanical Dimensions

Figure 4: Drawing for BXHD-1919-160 holder

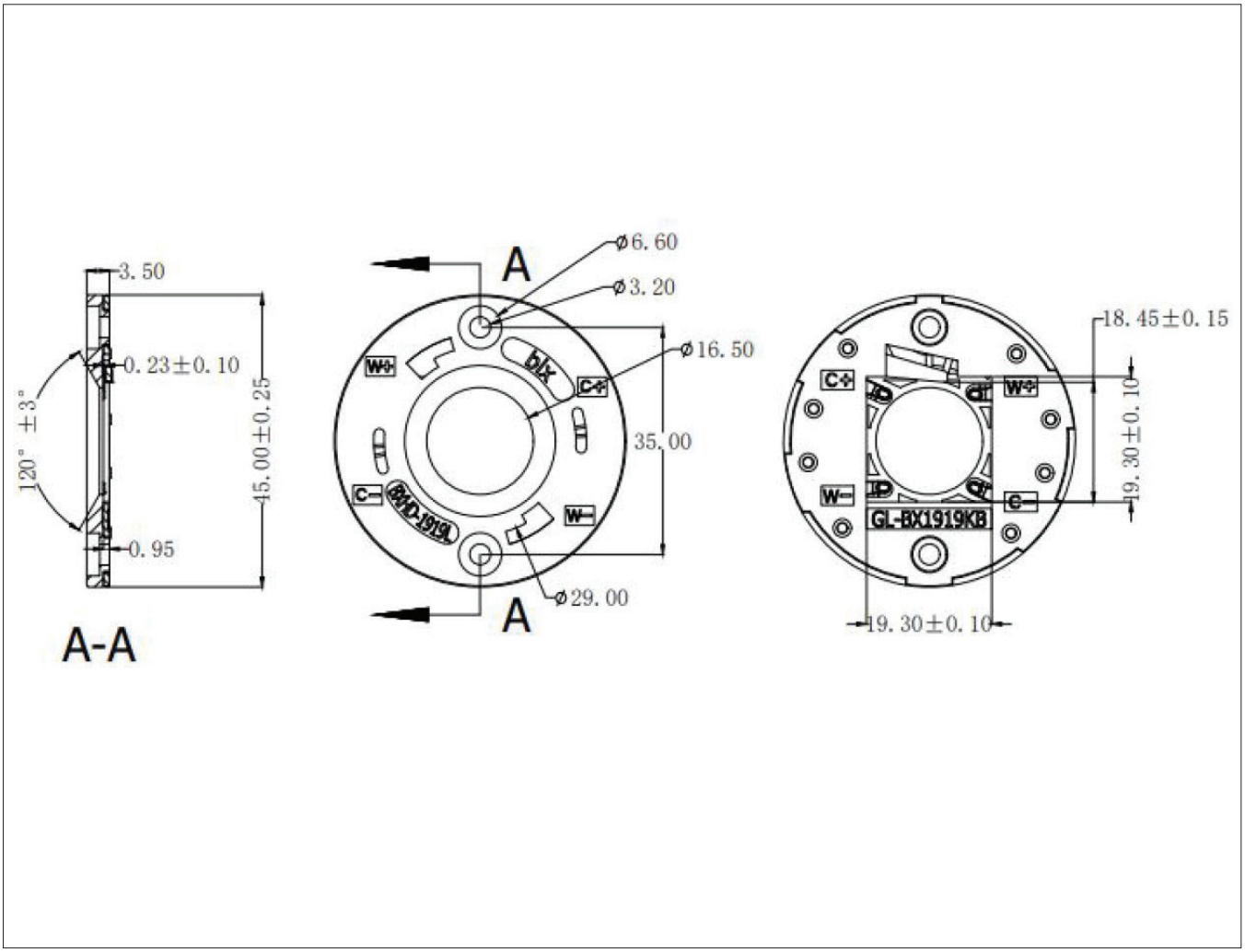


Notes for Figure 4:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Mechanical Dimensions

Figure 5: Drawing for BXHD-1919-165L holder

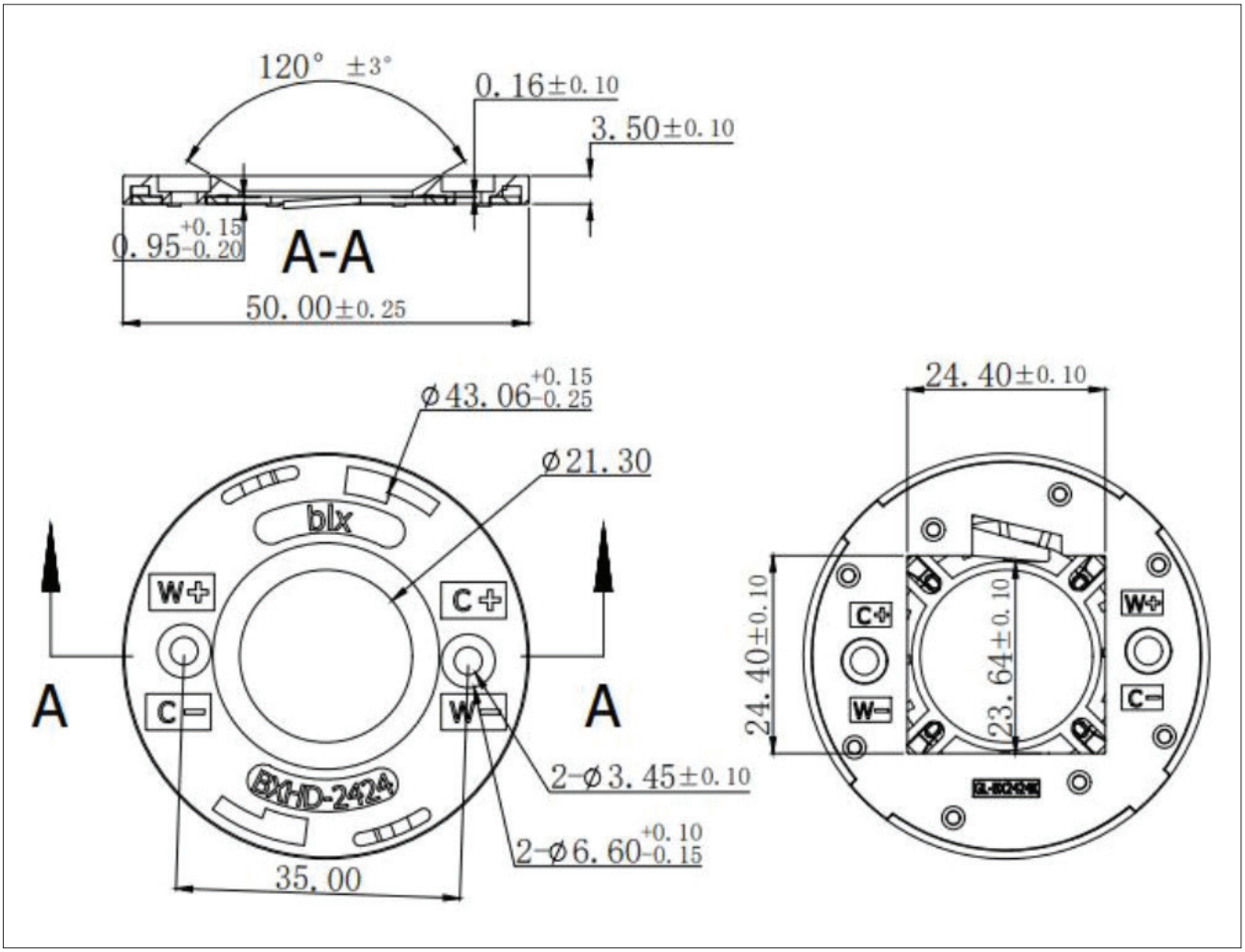


Notes for Figure 5:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Mechanical Dimensions

Figure 6: Drawing for BXHD-2424-213 holder

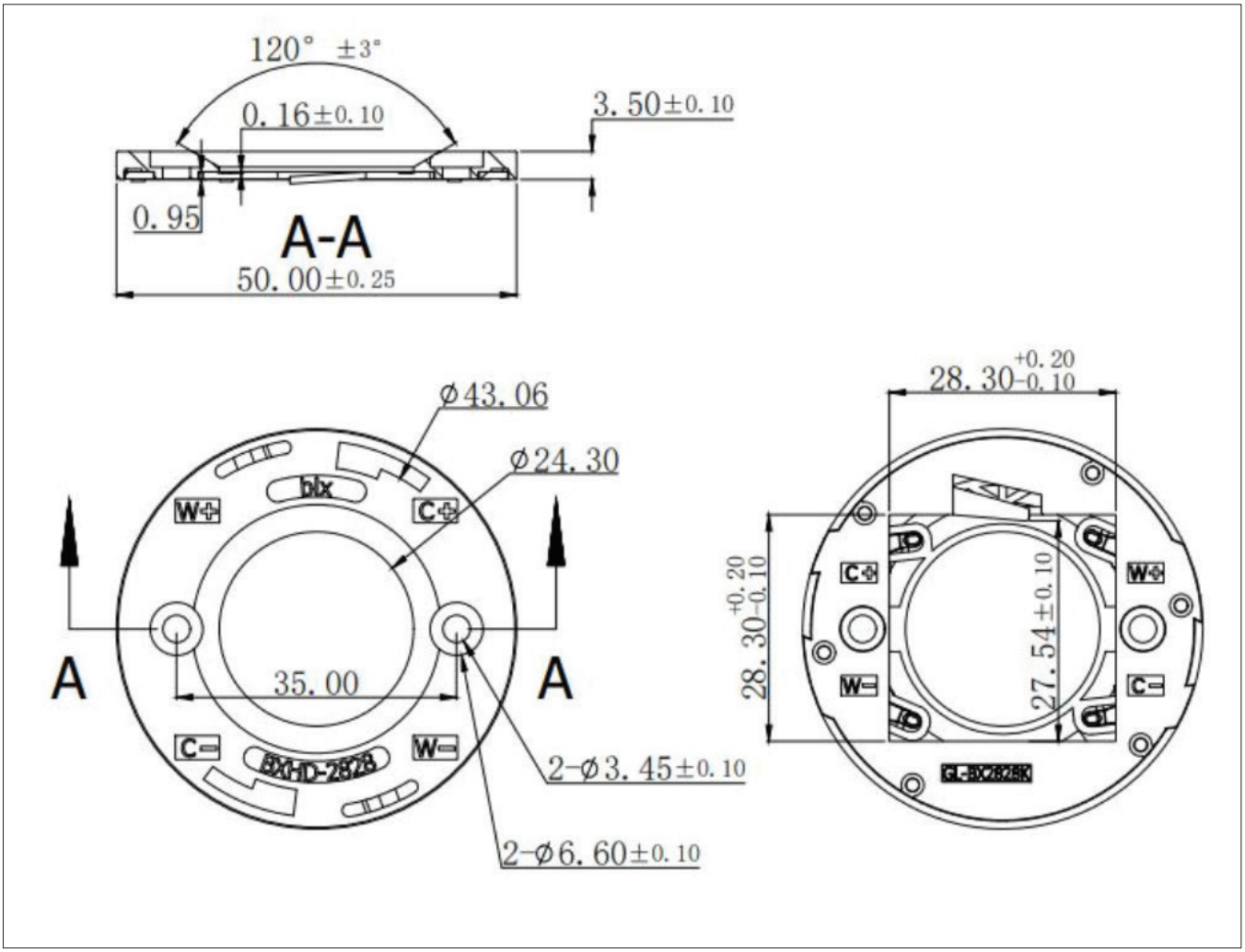


Notes for Figure 6:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Mechanical Dimensions

Figure 7: Drawing for BXHD-2828-243



Notes for Figure 7:

1. Drawings are not to scale.
2. Drawing dimensions are in millimeters.
3. Unless otherwise specified, tolerances are ±0.15 mm.
4. Contact pad labeled "+" denotes positive contact.
5. Bridgelux Solderless Holder maintains a flatness of 0.10mm across the mounting surface of the array.

Design Resources

Application Notes

Bridgelux has developed a comprehensive set of application notes and design resources to assist customers in successfully designing with the V series product family of LED array products. For all available application notes visit www.bridgelux.com.

Disclaimers

MINOR PRODUCT CHANGE POLICY

The rigorous qualification testing on products offered by Bridgelux provides performance assurance. Slight cosmetic changes that do not affect form, fit, or function may occur as Bridgelux continues product optimization.

About Bridgelux: Bridging Light and Life™

At Bridgelux, we help companies, industries and people experience the power and possibility of light. Since 2002, we've designed LED solutions that are high performing, energy efficient, cost effective and easy to integrate. Our focus is on light's impact on human behavior, delivering products that create better environments, experiences and returns—both experiential and financial. And our patented technology drives new platforms for commercial and industrial luminaires.

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