



# Bridgelux® Constant Current LED Tape Strip

Product Data Sheet DS3510





# Product Selection Guide

The following product configurations are available:

Table 1: Selection Guide, White Pulsed Measurement Data at 1 ft (304.8mm) length ( $T_j=T_c=25^\circ\text{C}$ )

Part Number	Nominal CCT <sup>1</sup> (K)	CRI <sup>2</sup>	Drive Current (mA)	Forward Voltage <sup>3</sup> (V)	Typical Power (W)	Typical Flux <sup>3,4,5</sup> (lm)	Typical Efficacy (lm/W)
BXEB-S368-727E412J3-A001	2700	80	200	32.3	6.5	1264	199
BXEB-S368-730E412J3-A001	3000					1274	
BXEB-S368-735E412J3-A001	3500					1284	
BXEB-S368-740E412J3-A001	4000					1274	
BXEB-S368-750E412J3-A001	5000					1274	
BXEB-S368-765E412J3-A001	6500					1264	

Notes for Table 1:

1. Nominal CCT as defined by ANSI C78.377-2011.
2. Listed CRIs are minimum values and include test tolerance.
3. Products tested under pulsed condition (10ms pulse width) at nominal drive current where  $T_j$  (junction temperature) =  $T_c$  (case temperature) =  $25^\circ\text{C}$ .
4. Typical performance values are provided as a reference only and are not a guarantee of performance.
5. Bridgelux maintains a  $\pm 7.5\%$  tolerance on flux measurements

# Performance at Commonly Used Drive Currents

Constant Current LED Tape are tested to the specifications shown using the nominal drive currents in Table 1. It may also be driven at other drive currents dependent on specific application design requirements. The performance at commonly used drive currents is summarized in Table 2.

**Table 2: Performance at Commonly Used Drive Currents at 1 ft (304.8mm) length ( $T_c = 25^\circ\text{C}$ )**

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ (V)	Typical Power (W)	Typical Pulsed Flux <sup>2</sup> (lm)	Typical Efficacy (lm/W)
BXEB-S368-735E412J3-A001 (Tested at 1 foot) (12x 1-inch cuttable segments)	80	100	31.7	3.2	652	206
		150	32.0	4.8	973	203
		200	32.3	6.5	1284	199
		250	32.5	8.1	1587	195
		300	32.7	9.8	1883	192
		350	32.9	11.5	2171	189
		400	33.1	13.2	2449	185
		450	33.2	15.0	2721	182
		500	33.4	16.7	2985	179
		550	33.5	18.5	3234	175
		600	33.7	20.2	3475	172
		650	33.8	22.0	3708	169
700	33.9	23.8	3934	166		

Notes for Table 2:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a  $\pm 7\%$  tolerance on flux measurements.
3. For maximum drive current, please refer to Table 3 (Maximum Ratings). The drive current listed in Table 2 is for reference only.

# Performance at Commonly Used Drive Currents

**Table 3: Performance at Commonly Used Drive Currents at 1 inch (25.4mm) length ( $T_c = 25^\circ \text{C}$ )**

Part Number	CRI	Drive Current <sup>1</sup> (mA)	Typical $V_f$ (V)	Typical Power (W)	Typical Pulsed Flux <sup>2</sup> (lm)	Typical Efficacy (lm/W)
BXEB-S368-735E412J3-A001 (Tested at 1 inch) (1 inch cuttable)	80	8.3	31.7	0.3	54	206
		12.5	32.0	0.4	81	203
		16.7	32.3	0.5	107	199
		20.8	32.5	0.7	132	195
		25.0	32.7	0.8	157	192
		29.2	32.9	1.0	181	189
		33.3	33.1	1.1	204	185
		37.5	33.2	1.2	227	182
		41.7	33.4	1.4	249	179
		45.8	33.5	1.5	270	176
		50.0	33.7	1.7	290	172
		54.2	33.8	1.8	309	169
58.3	33.9	2.0	328	166		

Notes for Table 3:

1. Alternate drive currents are provided for reference only and are not a guarantee of performance.
2. Bridgelux maintains a  $\pm 7\%$  tolerance on flux measurements.
3. For maximum drive current, please refer to Table 3 (Maximum Ratings). The drive current listed in Table 2 is for reference only.

# Absolute Maximum Ratings

Table 4: Maximum Ratings at 1 ft (304.8mm) length

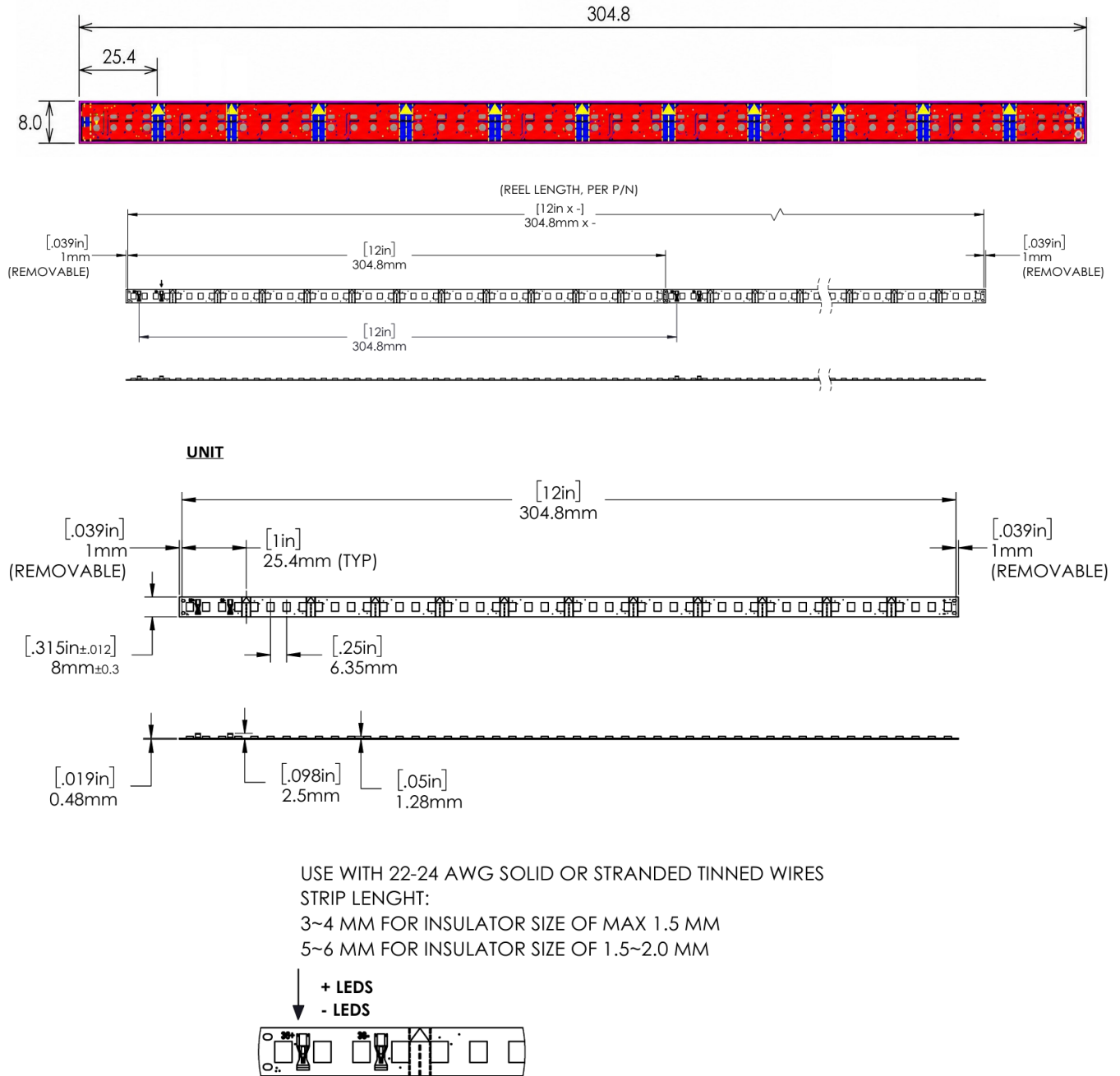
Parameter	Maximum Rating
Storage Temperature	-40°C to +85°C
Operating Case Temperature ( $T_c$ )	85°C
Soldering Temperature	350°C or lower for a maximum of 5 seconds
	BXEB- S368-7xxE412J3-A001
Maximum Drive Current	700 mA

Notes for Table 4:

1. For IEC 62717 requirement, please consult your Bridgelux sales representative.
2. Lumen maintenance (L70) and lifetime predictions are valid for drive current and case temperature conditions used for LM-80 testing as included in the applicable LM-80 test report for the SMDs used in the modules. Contact your Bridgelux sales representatives for LM-80 report.

# Mechanical Dimensions

Figure 1: Drawing Overview for Constant Current LED Tape



\* WITHDRAW WIRE : USE TOOL OR COUNTERCLOCKWISE TWIST

Notes for Figures 1:

1. Solder pads are labeled "+" to denote positive polarity, and "-" to denote negative polarity.
2. Drawing dimensions are in millimeters.
3. 8 mm Width, 25.4 mm cuttable

# Mechanical Dimensions

**Table 5: Strip Module Dimensions**

Parameter	BXEB-S368-7xxE412J3-A001	BXEB-S368-7xxE412J3-A050	BXEB-S368-7xxE412J3-A400
Linear length per reel	1 ft (304.8mm)	50 ft (15,240 mm)	400 ft (121,920 mm)
Linear width	8 mm		
Overall thickness	1.05 mm		
PCB thickness	0.25 mm		

Note for Table 5:

1. The table above lists the standard reel lengths. Additional lengths may be available upon request, please consult your Bridgelux sales representative.

**Table 6: Reel Package Option**

Part Number	Strip Length Per Reel Package
BXEB-S368-7xxE412J3-A050	50 ft (15,240 mm)
BXEB-S368-7xxE412J3-A400	400 ft (121,920 mm)

# Packaging and Labeling

Figure 2: Strip Series Packaging and Labeling

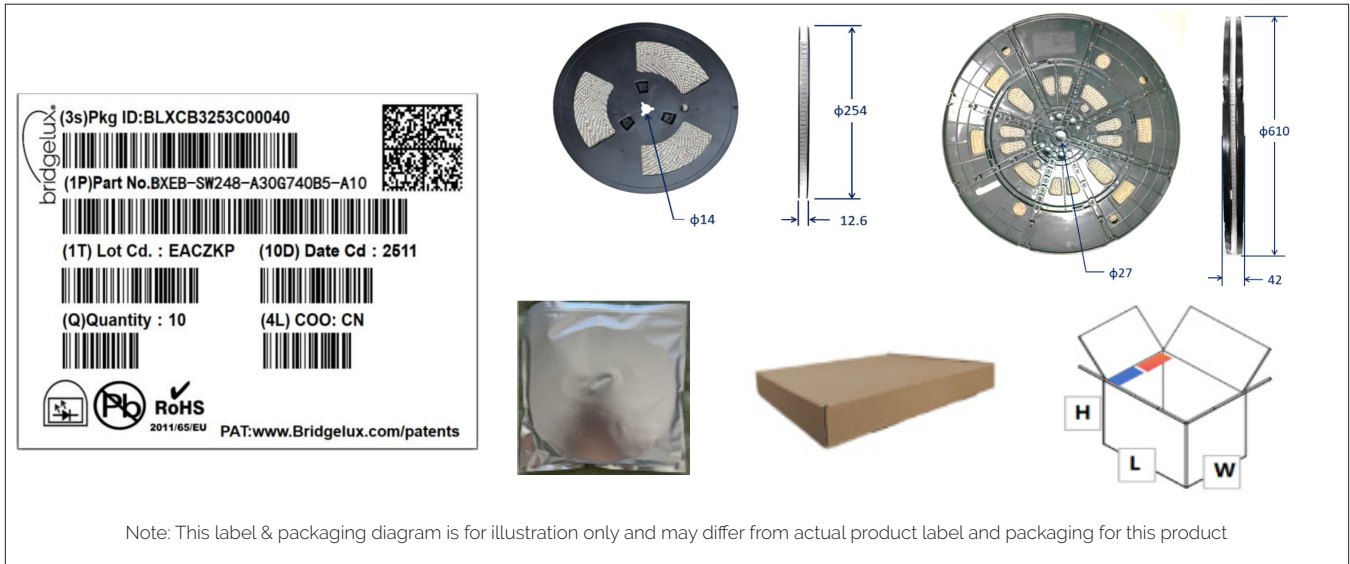


Table 7: Packaging Structure

Box Parameter	BXEB-S368-7xxE412J3-A050
Quantity	10 Reels (280 mm x 310 mm Silver Antistatic PE Bag, 1 reel per bag) (280 mm x 280 mm x 18 mm Gift-Box, 1 reel per gift-box)
Dimension	290 mm x 255 mm x 295 mm (L*W*H)
Box Parameter	BXEB-S368-7xxE412J3-A400
Quantity	4 Reels (650 mm x 650 mm Silver Antistatic PE Bag, 1 reel per bag) (615 mm x 615 mm x 45 mm Gift-Box, 1 reel per gift-box)
Dimension	635 mm x 635 mm x 215 mm (L*W*H)

Figure 3: Product Labeling

Bridgelux Constant Current LED Tape modules contain a label on the front to help with product identification. In addition to the product identification markings, Bridgelux Constant Current LED Tape modules also contain markings for internal Bridgelux manufacturing use only. The image below shows which markings are for customer use and which ones are for Bridgelux internal use only. The Bridgelux internal manufacturing markings are subject to change without notice, however these will not impact the form, function or performance of the module.



Customer Use- 2D Barcode  
Scannable barcode provides product part number and other Bridgelux internal production information.

# Design Resources

## Application Notes

Constant Current LED Tape are intended for use in dry, indoor applications. Bridgelux has developed a comprehensive set of application notes and design resources to assist customers in successfully designing with the product family of Constant Current LED Tape products. For a list of resources under development, visit [www.bridgelux.com](http://www.bridgelux.com).

## Optical Source Models

Optical source models and ray set files are available for all Bridgelux products. For a list of available formats, visit [www.bridgelux.com](http://www.bridgelux.com).

## 3D CAD Models

Three dimensional CAD models depicting the product outline of all Bridgelux Constant Current LED Tape are available in both IGS and STEP formats. Please contact your Bridgelux sales representative for assistance.

## LM80

Please contact your Bridgelux sales representative for more information.

# Precautions

## CAUTION: CHEMICAL EXPOSURE HAZARD

Exposure to some chemicals commonly used in luminaire manufacturing and assembly can cause damage to the F90 CRD Strip. Please consult Bridgelux Application Note for additional information.

## CAUTION: EYE SAFETY

The Bridgelux Constant Current LED Tape emits visible light, that, under certain circumstances, could be harmful to the eye. Proper safeguards must be used.

## CAUTION: RISK OF BURN

Do not touch the Constant Current LED Tape during operation. Allow the Constant Current LED Tape to cool for a sufficient period of time before handling. The Constant Current LED Tape may reach elevated temperatures such that could burn skin when touched.

## CAUTION

### CONTACT WITH LIGHT EMITTING SURFACE (LES)

Avoid any contact with the LES. Do not touch the LES of the Constant Current LED Tape or apply stress to the LES (yellow phosphor resin area). Contact may cause damage to the F90 CRD Strip.

Optics and reflectors must not be mounted in contact with the LES (yellow phosphor resin area). Optical devices may be mounted on the top surface of the F90 CRD Strip. Use the mechanical features of the Constant Current LED Tape housing, edges and/or mounting holes to locate and secure optical devices

# Disclaimers

## STANDARD TEST CONDITIONS

Unless otherwise stated, Constant Current LED Tape testing is performed at the nominal drive current.

## 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.

For more information about the company, please visit

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