Solid-State Lighting Series

PLCC Lightbar FPC Series Datasheet

PLCC Lightbar FPC is a strip of lighting module available in varying length. Its flexible circuit board not only enables novel design thinking with bendable light source, but also offers a wide range of applications with dividable lighting segments.

Features :

- High Brightness SMD LED
- Low Power Requirement & Energy Efficient
- Easily customized for any length
- Suitable for Restricted Space

Typical Applications :

- Auditorium Walkway Lighting
- Stairway Accent Lighting
- Cabinet Lighting

Specification :

- Color :

Lighting Design Manufacturing Service

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LBKx-M480/x0238 Package Dimensions and Circuit Diagram

• Package Dimensions

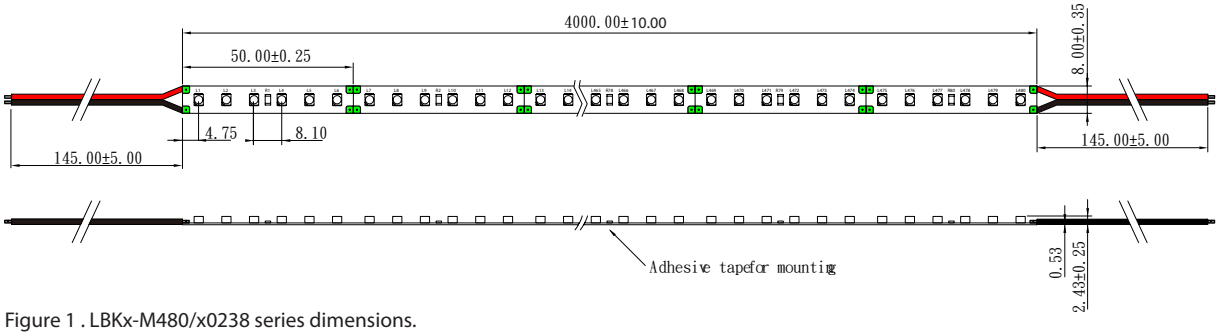

Figure 1 . LBKx-M480/x0238 series dimensions.

Note:
All dimensions are in millimeters.

• Circuit Diagram

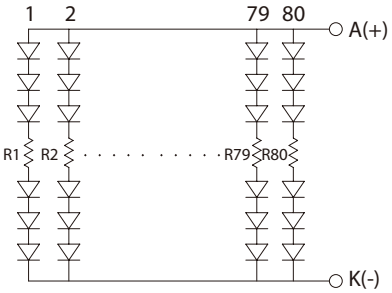

Figure 2 . LBKx-M480/x0238 series circuit diagram.

LBKx-J300/x0227 Package Dimensions and Circuit Diagram

• Package Dimensions

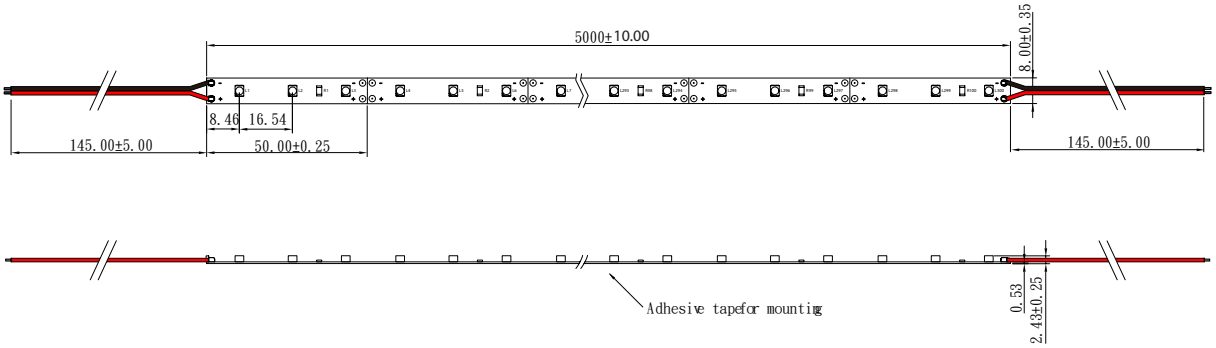

Figure 3 . LBKx-J300/x0227 series dimensions.

Note:
All dimensions are in millimeters.

• Circuit Diagram

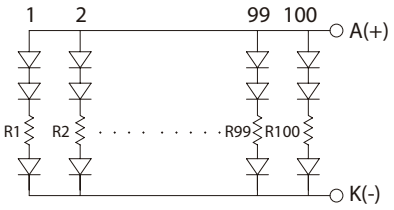

Figure 4 . LBKx-J300/x0227 series circuit diagram.

LBKx-M600/xxx27 Series Package Dimensions and Circuit Diagram

• Package Dimensions

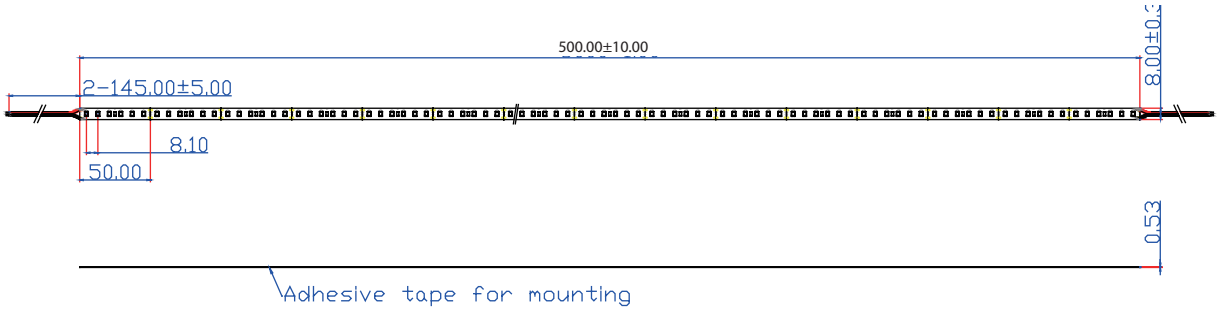

Figure 5 . LBKx-M600 series dimensions.

Note:
1. All dimensions are in millimeters.
2. Tolerance is ±0.20 mm.

• Circuit Diagram

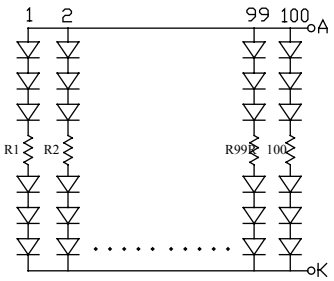

Figure 6 . LBKRTB-M240 series circuit diagram.

LBKx-M192 Series Package Dimensions and Circuit Diagram

• Package Dimensions

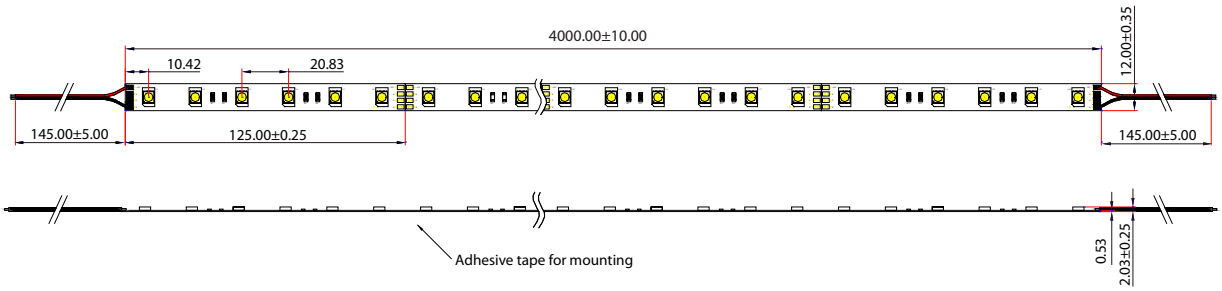

Figure 7 . LBKx-M192 series circuit diagram.

Note:
All dimensions are in millimeters.

• Circuit Diagram

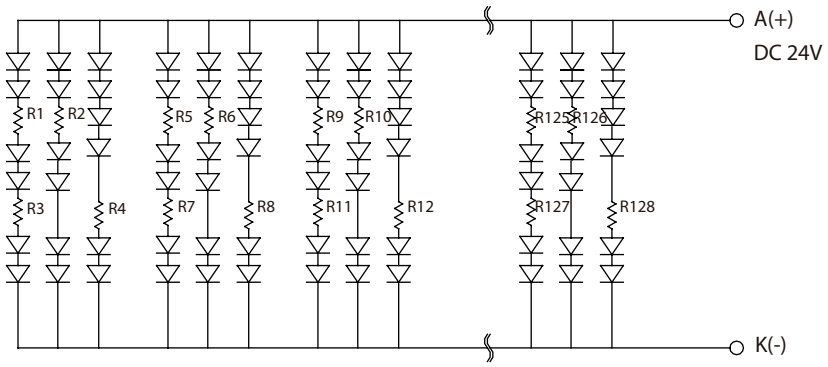

Figure 8 . LBKx-M192 series circuit diagram.

LBKx-M240/xxx52 Series Package Dimensions and Circuit Diagram

• Package Dimensions

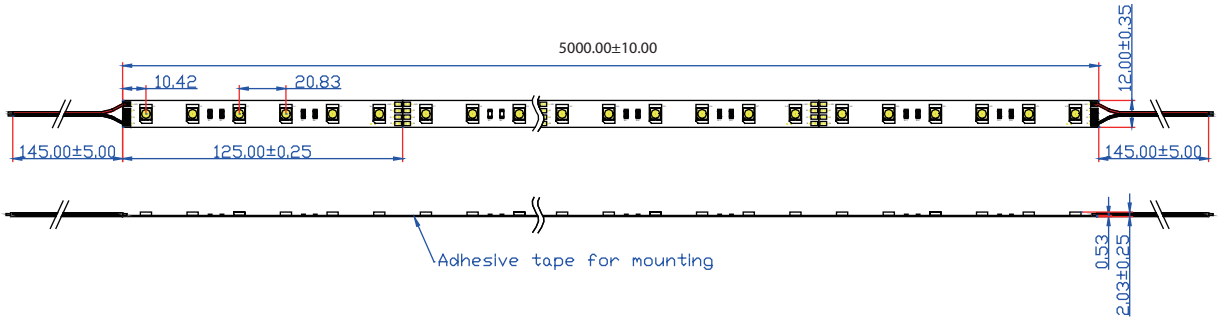

Figure 9 . LBKx-M240 series circuit diagram.

Note:
1. All dimensions are in millimeters.
2. Tolerance is ±0.20 mm.

• Circuit Diagram

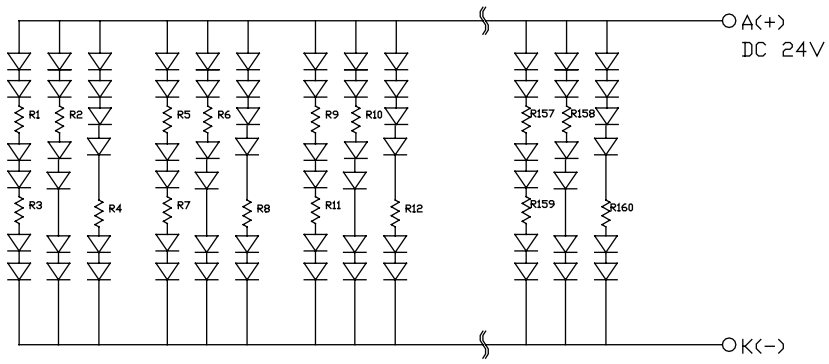

Figure 10 . LBKRTB-M240 series circuit diagram.

LBKRTB-M240 Series Package Dimensions and Circuit Diagram

• Package Dimensions

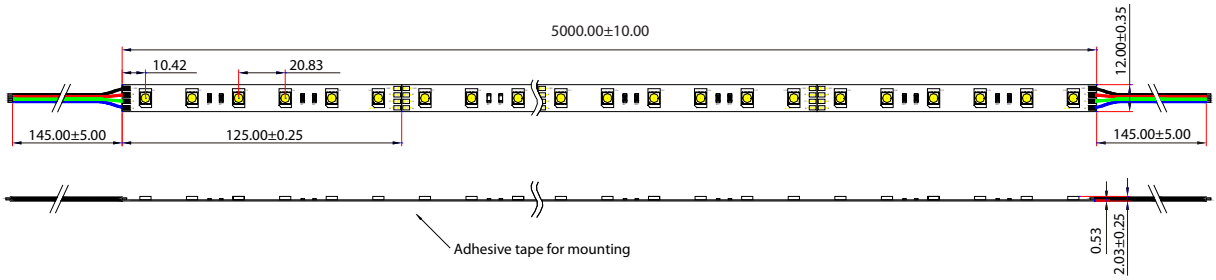

Figure 11. LBKRTB-M240 series dimensions.

Note:
All dimensions are in millimeters.

• Circuit Diagram

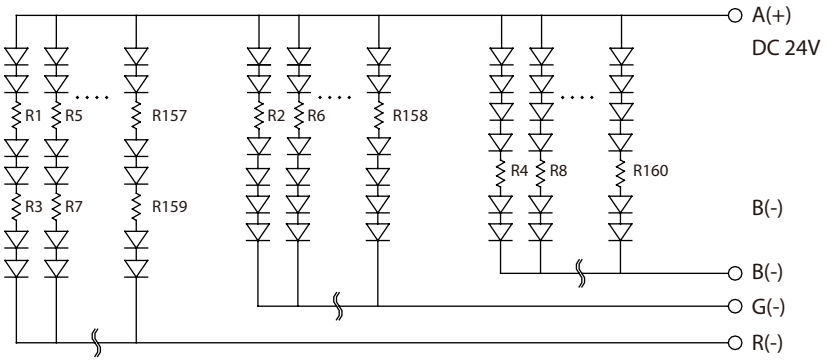

Figure 12 . LBKRTB-M240 series circuit diagram.

Absolute Maximum Ratings

Table 1. Absolute maximum ratings for PLCC lightbar FPC series.

Parameter	Symbol	Rating	Units
LED junction Temperature	T_J	125	°C
Operating Temperature	T_{opr}	-20 ~ +85	°C
Storage Temperature	T_{stg}	-20 ~ +85	°C

Note:
1. Proper current derating must be observed to maintain junction temperature below the maximum at all time.
2. LEDs are not designed to be driven in reverse bias.

Electro-Optical Characteristics (T_a=25°C)

• LBKx-M480/x0238 Series

Table 2. LBKx-M480/x0238 series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT(K)/ λd(nm)	Lumen Flux(lm)
LBKW-M480/ A0238	Cool White	480	24	34.56	1440	120°	6000K	1747
LBKH-M480/ D0238	Neutral White	480	24	34.56	1440	120°	4100K	1622
LBKX-M480/ D0238	Warm White	480	24	34.56	1440	120°	3050K	1498
LBKR-M480/ N0238	Red	480	24	34.56	1440	120°	620~630nm	537
LBKG-M480/ N0238	Green	480	24	34.56	1440	120°	520~535nm	1176
LBKB-M480/ N0238	Blue	480	24	34.56	1440	120°	465~475nm	346
LBKA-M480/ N0238	Amber	480	24	34.56	1440	120°	610~620nm	537
LBKY-M480/ N0238	Yellow	480	24	34.56	1440	120°	585~595nm	537

Note : Flux is measured with an accuracy of ± 10%.

• LBKx-J300/x0227 Series

Table 3. LBKx-J300/x0227 series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT(K)/ λd(nm)	Lumen Flux(lm)
LBKW-J300/ A0227	Cool White	300	12	21.60	1800	120°	6000K	1092
LBKH-J300/ D0227	Neutral White	300	12	21.60	1800	120°	4100K	1014
LBKX-J300/ D0227	Warm White	300	12	21.60	1800	120°	3050K	936
LBKR-J300/ N0227	Red	300	12	21.60	1800	120°	620~630nm	336
LBKG-J300/ N0227	Green	300	12	21.60	1800	120°	520~535nm	735
LBKB-J300/ N0227	Blue	300	12	21.60	1800	120°	465~475nm	189
LBKA-J300/ N0227	Amber	300	12	21.60	1800	120°	610~620nm	336
LBKY-J300/ N0227	Yellow	300	12	21.60	1800	120°	585~595nm	336

Note : Flux is measured with an accuracy of ± 10%.

• LBKx-M600 Series

Table 4. LBKx-M600 series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT(K)/ λd(nm)	Lumen Flux(lm)
LBKW-M600/ A0227	cool white	600	24	43.2	1800	120°	6000K	2184
LBKH-M600/ D0227	Neutral white	600	24	43.2	1800	120°	4100K	2027
LBKX-M600/ D0227	warm white	600	24	43.2	1800	120°	3050K	1848
LBKR-M600/ N0227	red	600	24	43.2	1800	120°	620~630nm	672
LBKG-M600/ N0227	green	600	24	43.2	1800	120°	520~535nm	1470
LBKB-M600/ N0227	blue	600	24	43.2	1800	120°	465~475nm	432
LBKA-M600/ N0227	amber	600	24	43.2	1800	120°	610~620nm	672
LBKY-M600/ N0227	yellow	600	24	43.2	1800	120°	585~595nm	672

Note : Flux is measured with an accuracy of ± 10%.

• LBKx-M192 Series

Table 5. LBKx-M192 series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT(K)/ λd(nm)	Lumen Flux(lm)
LBKW-M192/ A0253	Cool White	192	24	46.08	1920	120°	6000K	2083
LBKH-M192/ D0253	Neutral White	192	24	46.08	1920	120°	4100K	1949
LBKX-M192/ D0253	Warm White	192	24	46.08	1920	120°	3050K	1640
LBKR-M192/ N0253	Red	192	24	46.08	1920	120°	620~630nm	737
LBKG-M192/ N0253	Green	192	24	46.08	1920	120°	520~535nm	1465
LBKB-M192/ N0253	Blue	192	24	46.08	1920	120°	465~475nm	390
LBKA-M192/ N0253	Amber	192	24	46.08	1920	120°	610~620nm	737
LBKY-M192/ N0253	Yellow	192	24	46.08	1920	120°	585~595nm	737

Note : Flux is measured with an accuracy of ± 10%.

• LBKx-M240 Series

Table 6. LBKx-M240 series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT(K)/ λd(nm)	Lumen Flux(lm)
LBKW-M240/ A0252	cool white	240	24	57.6	2400	120°	6000K	2600
LBKH-M240/ D0252	Neutral white	240	24	57.6	2400	120°	4100K	2440
LBKX-M240/ D0252	warm white	240	24	57.6	2400	120°	3050K	2050
LBKR-M240/ N0252	red	240	24	57.6	2400	120°	620~630nm	921
LBKG-M240/ N0252	green	240	24	57.6	2400	120°	520~535nm	1830
LBKB-M240/ N0252	blue	240	24	57.6	2400	120°	465~475nm	490
LBKA-M240/ N0252	amber	240	24	57.6	2400	120°	610~620nm	921
LBKY-M240/ N0252	yellow	240	24	57.6	2400	120°	585~595nm	921

Note : Flux is measured with an accuracy of ± 10%.

• LBKRTB-M240 Series

Table 7. LBKRTB-M240 series electric-optical characteristics.

Part No.	Color	Number of LEDs	Input Voltage (V DC)	Power (W)	Current (mA)	Radiance Angle	CCT(K)/ λd(nm)	Lumen Flux(lm)
LBKRTB-M240/ N0652	Red	240	24	19.20	800	120°	620~630nm	288
	Green	240	24	19.20	800	120°	520~535nm	652
	Blue	240	24	19.20	800	120°	465~475nm	192

Note : Flux is measured with an accuracy of ± 10%.

Environmental Compliance

PLCC lightbar FPC series are compliant to the Restriction of Hazardous Substances Directive or RoHS. The restricted materials including lead, mercury cadmium hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ether (PBDE) are not used in PLCC lightbar FPC series to provide an environmentally friendly product to the customers.

Application Notes

PLCC Lightbar FPC series are available in cool white, neutral white and warm white for application such as under-cabinet lighting, cove lighting and wall washing.
Moreover, additional fine-tuned high color rendering index (CRI) version of white, neutral white and warm white all make PLCC Lightbar FPC series the ideal lighting choice for vividly displaying fruit and vegetables and/or refrigeration products, presenting the true color of the products and reflecting the freshness of goods.