

**FLEXSTRIP LIGHT****BVM-SFPC5 SERIES****■ DESCRIPTION**

- Flexstrip light is made of high brightness SMD LEDs mounted on flexible printed circuit (FPC). Totally six different colors (red, orange red, yellow, green, blue, and white) are available for various applications.
- Bright View also provides controller for dimmer and programmable color change.

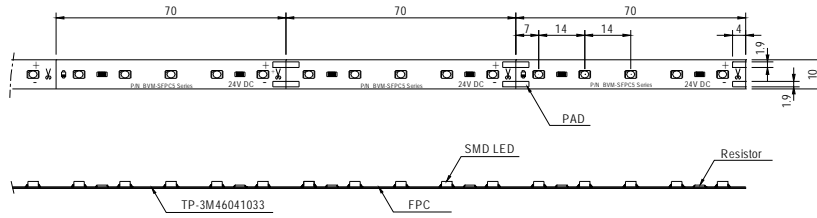
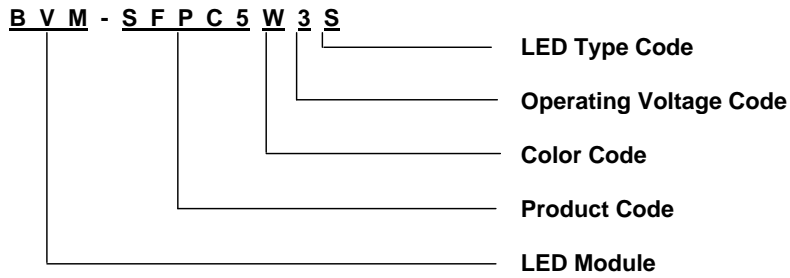
**■ FEATURES**

- Number of SMD LEDs : 300 pcs of ultra bright SMD LEDs
- Product size (LxWXH) : 4200mm x 10mm x 2.6mm
- Easy installation with the back adhesive-tape
- Products are packed into reel and can be cut at mark place into shorter units
- Shortest unit is 70mm with 5 LEDs; 60 shortest units per reel.
- Drive: 24VDC
- Low power consumption and high optical intensity
- Lead (Pb) free, and RoHS compliant

**■ APPLICATIONS**

- Amusement park & theater mood lighting
- Architectural decorative lighting
- Backlighting for signage letters
- Auditorium walkway lighting
- Stairway accent lighting
- Hallway lighting

**■ PRODUCT DIMENSION**

 Unit : mm  
 Tolerance : ±0.5mm

**■ PART NUMBERING SYSTEM**


**■ ABSOLUTE MAXIMUM RATINGS AT Ta = 25 °C**

| PARAMETER                              | BVM-SFPC5        |     |     |     |     |     |
|--|------------------|-----|-----|-----|-----|-----|
|  | R3S              | O3S | Y3S | B3S | G3S | W3S |
| Operating Voltage (max.)               | 25V              | 25V | 25V | 25V | 25V | 25V |
| Electrostatic Discharge (Contact Mode) | ±2000V           |     |     |     |     |     |
| Power Dissipation / Unit               | 0.63W            |     |     |     |     |     |
| Power Dissipation / Reel / 60Units     | 37.5W            |     |     |     |     |     |
| Operating Temperature Range            | -30 °C to +50 °C |     |     |     |     |     |
| Storage Temperature Range              | -30 °C to +85 °C |     |     |     |     |     |

**■ TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS AT 24VDC Ta = 25°C**

| SYMBOL          | PARAMETER                | R3S | O3S    | Y3S    | B3S  | G3S   | W3S   | Unit |
|-----------------|--------------------------|-----|--------|--------|------|-------|-------|------|
|                 | Color                    | Red | Orange | Yellow | Blue | Green | White | *    |
| $\lambda_p$     | Peak Emission Wavelength | 632 | 611    | 591    | 465  | 520   | *     | nm   |
| $\lambda_d$     | Dominant Wavelength      | 624 | 605    | 589    | 470  | 525   | *     | nm   |
| $2\theta_{1/2}$ | LED Viewing Angle        | 110 | 110    | 110    | 110  | 110   | 110   | deg  |
| $I_U$           | Operating Current / Unit | 20  | 20     | 20     | 20   | 20    | 20    | mA   |
| $I_R$           | Operating Current / Reel | 1.2 | 1.2    | 1.2    | 1.2  | 1.2   | 1.2   | A    |
| $\Phi_U$        | Luminous Flux / Unit     | 5.5 | 3.5    | 7.0    | 2.5  | 7.0   | 16.5  | lm   |
| $\Phi_R$        | Luminous Flux / Reel     | 330 | 210    | 420    | 150  | 420   | 990   | lm   |

\* White products are provided with different color temperature bins. (see following paragraph)

- Note**
1. Luminous flux measurement tolerance : +/- 10%
  2. View angle of the LED is the off-axis angle from the optical center line to the 1/2 luminous intensity of the peak value.

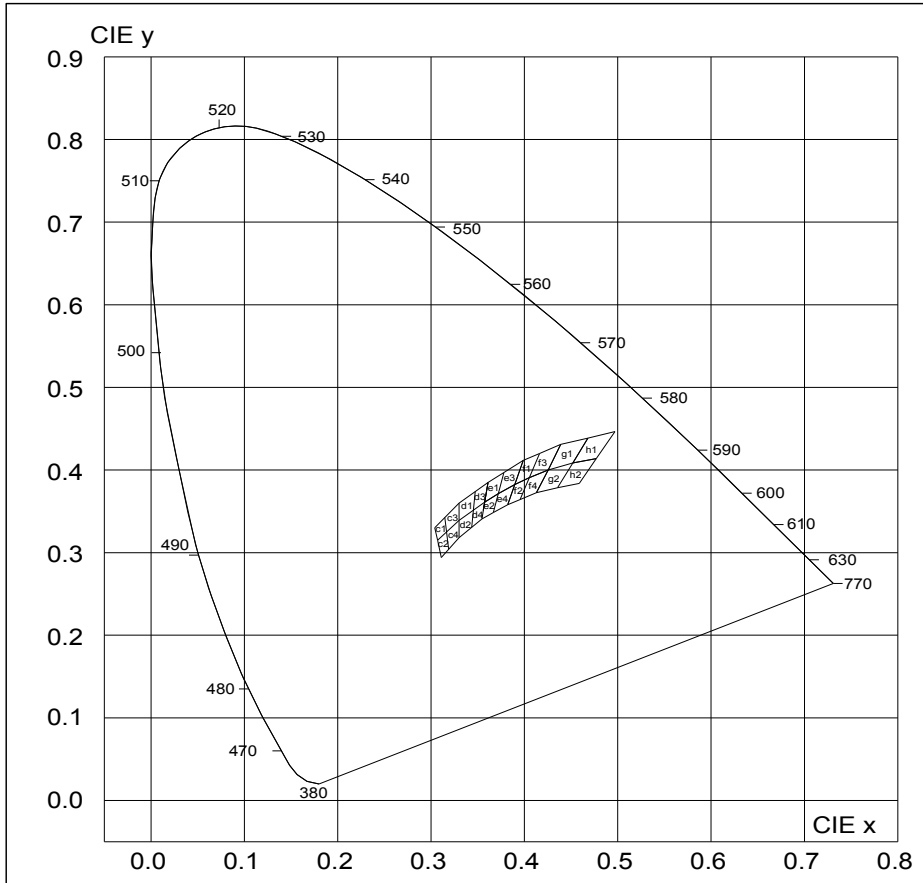
**■ SMD LED DOMINANT WAVELENGTH FOR BIN CODE / nm**

| Orange   |         | Yellow   |         | Green    |         |
|----------|---------|----------|---------|----------|---------|
| Bin Code | Range   | Bin Code | Range   | Bin Code | Range   |
| AC       | 602~606 | YC       | 582~585 | PG       | 518~521 |
| AD       | 606~610 | YD       | 585~588 | PH       | 521~524 |
| AE       | 610~614 | YE       | 588~591 | PI       | 524~527 |
| AF       | 614~618 | YF       | 591~594 | PJ       | 527~530 |
| AG       | 618~622 | YG       | 594~597 | PK       | 530~533 |

**■ BIN GRADE LIMITS CHROMATICITY COORDINATES**

| Bin Code | Color Temperature Rank<br>(Kelvin) | Chromaticity Coordinates |        |        |        |        |
|----------|------------------------------------|--------------------------|--------|--------|--------|--------|
| c1       | 6300~7000                          | x                        | 0.307  | 0.304  | 0.3147 | 0.3165 |
|          |                                    | y                        | 0.315  | 0.33   | 0.3423 | 0.325  |
| c2       |                                    | x                        | 0.311  | 0.307  | 0.3165 | 0.3188 |
|          |                                    | y                        | 0.294  | 0.315  | 0.325  | 0.3038 |
| c3       | 5500~6300                          | x                        | 0.3165 | 0.3147 | 0.33   | 0.33   |
|          |                                    | y                        | 0.325  | 0.3423 | 0.36   | 0.339  |
| c4       |                                    | x                        | 0.3188 | 0.3165 | 0.33   | 0.33   |
|          |                                    | y                        | 0.3038 | 0.325  | 0.339  | 0.318  |
| d1       | 5000~5500                          | x                        | 0.33   | 0.33   | 0.3473 | 0.3453 |
|          |                                    | y                        | 0.339  | 0.36   | 0.3739 | 0.3514 |
| d2       |                                    | x                        | 0.33   | 0.33   | 0.3453 | 0.3436 |
|          |                                    | y                        | 0.318  | 0.339  | 0.3514 | 0.3307 |
| d3       | 4500~5000                          | x                        | 0.3453 | 0.3473 | 0.361  | 0.3575 |
|          |                                    | y                        | 0.3514 | 0.3739 | 0.385  | 0.3612 |
| d4       |                                    | x                        | 0.3436 | 0.3453 | 0.3575 | 0.3545 |
|          |                                    | y                        | 0.3307 | 0.3514 | 0.3612 | 0.3408 |
| f1       | 3800~3500                          | x                        | 0.3897 | 0.3988 | 0.4162 | 0.4053 |
|          |                                    | y                        | 0.3823 | 0.4116 | 0.42   | 0.3907 |
| f2       |                                    | x                        | 0.3822 | 0.3897 | 0.4053 | 0.3954 |
|          |                                    | y                        | 0.358  | 0.3823 | 0.3907 | 0.3642 |
| f3       | 3200~3500                          | x                        | 0.4053 | 0.4162 | 0.439  | 0.4255 |
|          |                                    | y                        | 0.3907 | 0.42   | 0.431  | 0.4    |
| f4       |                                    | x                        | 0.3954 | 0.4053 | 0.4255 | 0.4129 |
|          |                                    | y                        | 0.3642 | 0.3907 | 0.4    | 0.3725 |
| g1       | 2800~3200                          | x                        | 0.4255 | 0.439  | 0.468  | 0.4519 |
|          |                                    | y                        | 0.4    | 0.431  | 0.4385 | 0.4086 |
| g2       |                                    | x                        | 0.4129 | 0.4255 | 0.4519 | 0.4355 |
|          |                                    | y                        | 0.3725 | 0.4    | 0.4086 | 0.3785 |
| h1       | 2500~2800                          | x                        | 0.4519 | 0.468  | 0.497  | 0.477  |
|          |                                    | y                        | 0.4086 | 0.4385 | 0.4466 | 0.4137 |
| h2       |                                    | x                        | 0.4355 | 0.4519 | 0.477  | 0.4588 |
|          |                                    | y                        | 0.3785 | 0.4086 | 0.4137 | 0.3838 |

■ **CHROMATICITY DIAGRAM CIE 1931**



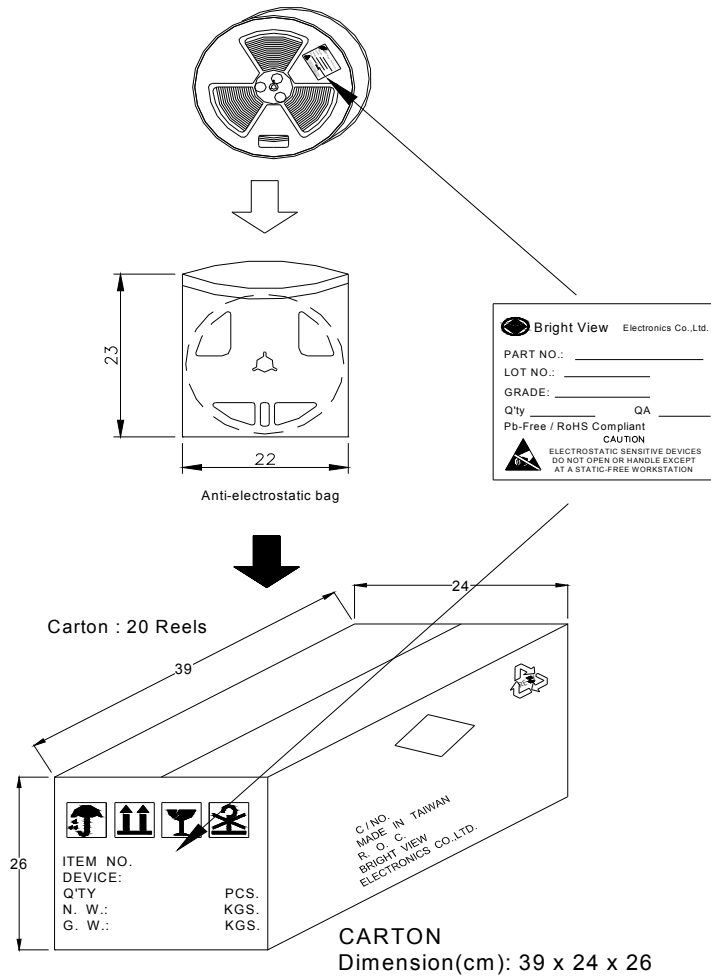
\*The chromaticity coordinates (x,y) of the SMD LEDs are in accordance with CIE 1931 chromaticity diagram.

\*The color temperature values used are based on the traditional incandescence lighting standard which cannot be exact applicable to LED lighting. It must be used only for reference purpose.

\*Measurement uncertainty of color coordinates:  $\pm 0.02$

**Note:** Products of different CIE bins may not use the same materials and thus may have minor differences in characteristic and business terms

■ **PACKING**



**■ CAUTIONS****1. Over voltage**

- A. Drive the product over the specified voltage rating (25VDC) per unit or per reel will damage the product.
- B. The product should not be used in reverse polarity.
- C. It is recommended to use a power supply with overload (over-voltage, short circuit and overheat) protection.

**2. Hand soldering**

- A. It is recommended to use a tip temperature of 280 °C for less than 3 seconds (one times) with a soldering iron capacity of 30W, if hand soldering of the connecting wire is required.
- B. Be careful of the contaminations of hand soldering.

**3. Storage & Handling**

- A. Open the anti-electrostatic bag only a short time before use.
- B. LED is encapsulated with elastic resin and will be damaged with a external force applied on the top surface of the LED.
- C. The product should be storage in an environment with the relative humidity less than 90% RH (@30 degree C or less).
- D. During installation, excess mechanical stress will damage the product. The minimum bending radius of curvature is 5000mm. The maximum twist angle is 1 degree.
- E. The product is not waterproof. Excess moisture may also damage the product.