Data Sheet
2835 SMD Module LED
Samsung Module LED

RoHS

ATTENTION
OBSERVE PRECAUTIONS
ELECTROSTATIC
SENSITIVE DEVICES

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General Informations:

Injection molding technical, ABS overmolded design protects components from moisture, damage and corrosion. Aluminum PCB, constant current design, ABS housing to make sure excellent heat dissipation. With lens create wide viewing angle, while protect LED well.

Features:

- SMD LED Mounted, CE Approved.
- Technical Size & Compact Design
- Safe & Stable Operation with DC12V (Constant-voltage)
- Water –Proof (IP67)
- Wide Viewing Angle
- Installation with Tape & Screw with 3mm Bolts

Application :

- Back Lighting for Signage & Channel Letter
- Outdoor Lighting for Advertising
- Decorative Lighting
- Architectural Lighting; Shelf Lighting, Garden, Building and others

Electrical and Flux Characteristics

Table 1: Flux Characteristics

Code	Number of LEDs	Case	Color	Wavelenght	Lm (Mod)	Angle
4694	3	SMD 2835	Cold White	9000-10000K	110lm	165°
4696	3	SMD 2835	Natual White	4000-4500K	100lm	165°

Notes for Table 1:

1. Parts are tested in pulsed conditions, Tj = 25°C. Pulse width is 10 ms at rated test current.
2. İlker Elektronik maintains a ± 10% tolerance on flux measurements.
3. Typical R9 value for 80CRI can be change with 90CRı.
4. Center beam candle power is a calculated value based on Lambertian radiation pattern at nominal test current.

Table 2: Electrical Characteristics

Code	Color	Forward Current	Input Voltage (CV)	Power (W/mod)	Lm (Mod)
4694	Cold White	100mA	12 VDC	1,2W	110lm
4696	Cold White	100mA	12 VDC	1,2W	100lm

Notes for Table 2:

1. Parts are tested in pulsed conditions, Tj = 25°C. Pulse width is 10 ms at rated test current.
2. İlker Elektronik maintains a ± 10% tolerance on Current values.
3. Typical stabilized DC performance values are provided as reference only and are not a guarantee of performance.
4. Voltages must be 12VDC.

Absolute Maximum Ratings (T_A = 25° C unless otherwise noted)

Table 3: Maximum Ratings

Parameter	Maximum Performance
Storage Temperature Range	-30 ~ +80° C
Operating Temperature Range	-20 ~ +50° C
Mounting Surface Temperature	60° C
Input Voltage (DC)	12 V
LED Junction Temperature[1]	110° C
Electrostatic Discharge Classification (JEDEC-JESD22-A114F)	Class 1C
Reverse Voltage[2,3]	-5V x Number of series LEDs
UL Recognition	UL recognized

Notes for Table 3:
1. Proper current de-rating must be observed to maintain junction temperature below the maximum.
2. SMD LEDs are not designed to be driven in reverse bias.
3. At maximum reverse current of 10µA/LED.

Application Notes:

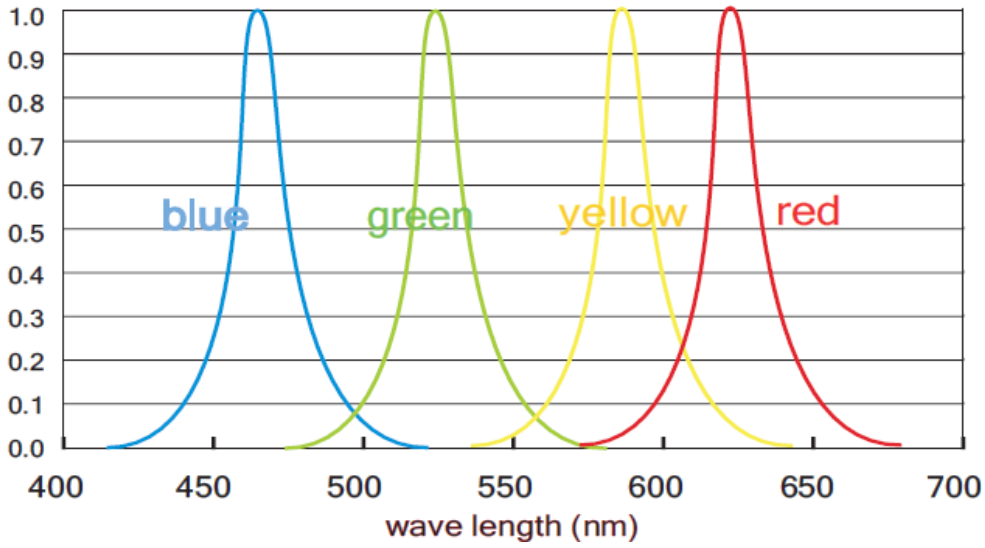
- Please ensure that when connecting to supply, the correct polarity printed on module is observed.
- Use of a regulated 12V DC supply is recommended.
- To prevent voltage drop, a power feed at each end is recommended for chains longer than 50 modules in length. For very long lengths it is recommended to connect a power feed after every 50 modules.

Precautions:

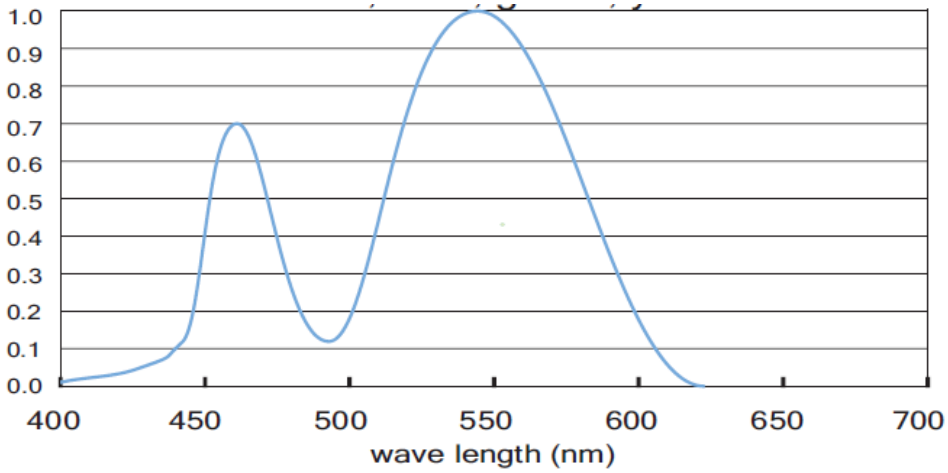
- Current should be derated in order to keep junction temperature below maximum by reducing power dissipation.
- Current spikes should be avoided especially during power up. It is good practice to initially connect PCB to inactivated supply, then gradually ramp up voltage to desired value.
- Proper management of the thermal path should be observed. Adequate heatsinking of strip should be provided in order to maintain junction temperature below maximum. Proper thermal conduction layers should be introduced at all interfaces to prevent insulating air gaps in the thermal path.
- As with all semiconductor devices, it is good practice to avoid electrostatic discharge (ESD).

Color Wavelength Diagram:

LED Color Spectrum for Red, Green, Blue, Yellow:



LED Color Spectrum for White (80 CRI) :

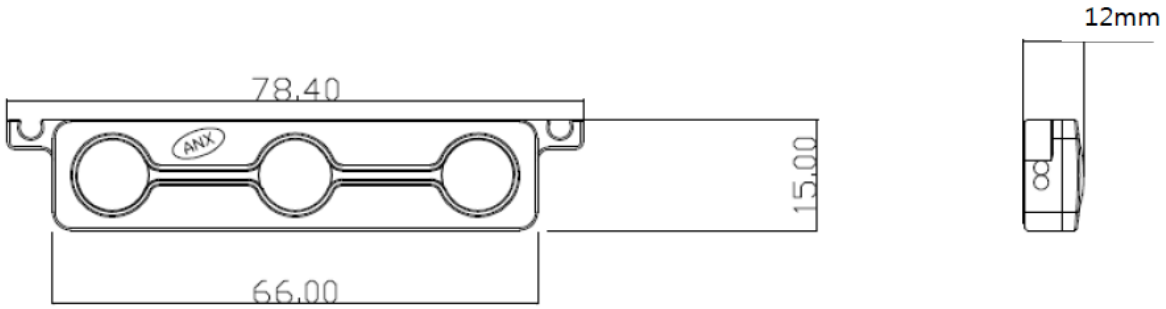


DO NOT LOOK DIRECTLY AT LED WITH UNSHIELDED EYES OR DAMAGE TO RETINA MAY OCCUR.

Mechanical Dimensions:

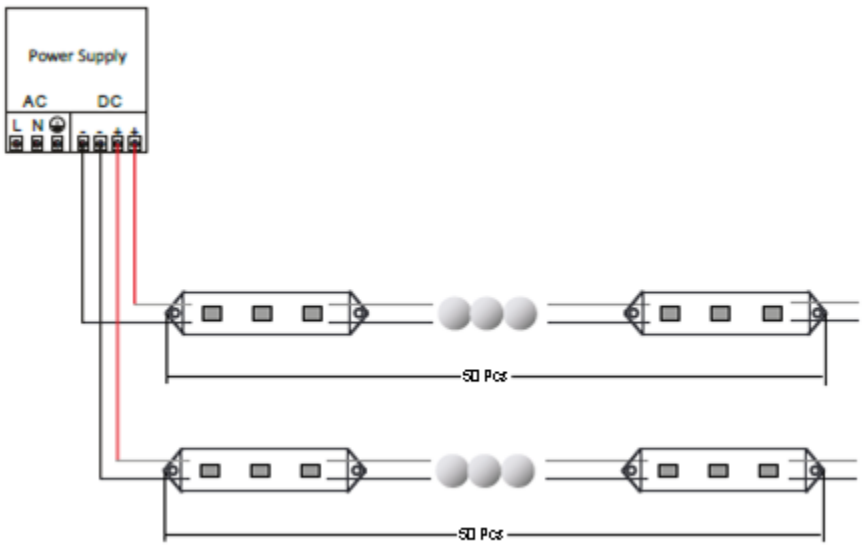
Technical Drawing:

66 mm*15 mm*7 mm (L*W*H)

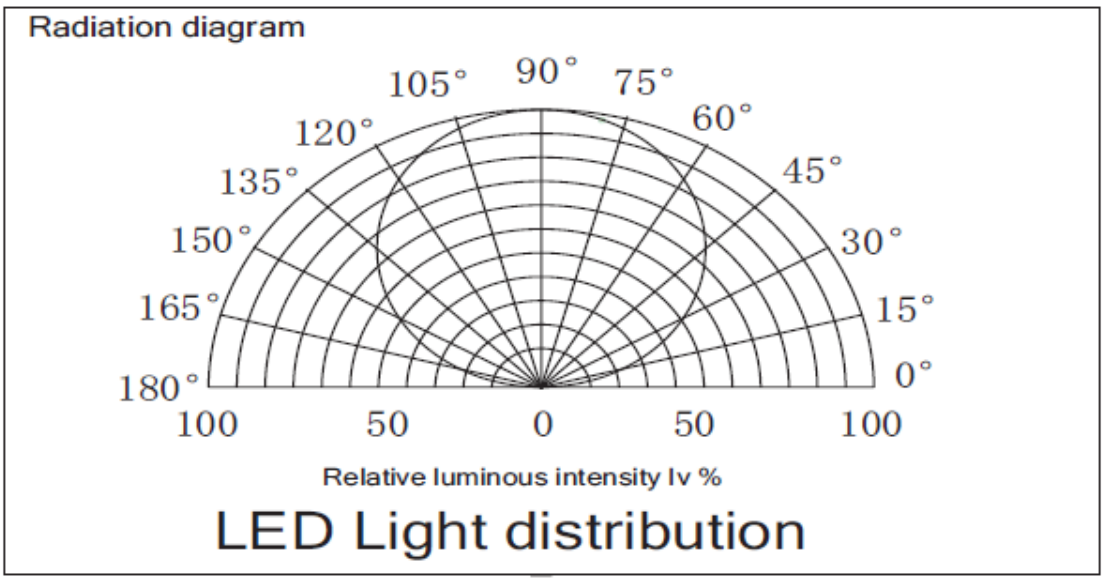


Electrical Connection:

Connection Diagram for LED Modules:



Optical Characteristics:



Packing:

📖 Inside box: 100pcs **(Max 150pcs)**
📖Carton Box: 1,000pcs **(Max 1,500pcs, 16~17 KG)**

=(100pcs/ 1 Pack) * 10