LMA SERIES
Linear 2 5050 LED Module

Part Number：WW-LMAT5L02XXA-12

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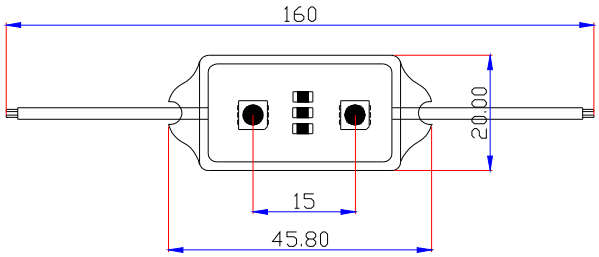
Wah Wang Data Sheet for LED Lighting Module WW-LMAT5L02XXA-12

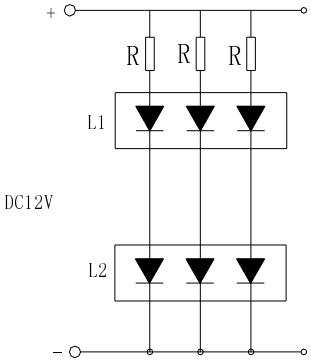
Features
- Steel Shell
- Suitable for any application
- 2pcs 5050 3 chips LED per Module
- High Reliability
- Size of small Module (L X W X H): *46mm X 20mm*
- Operating Voltage : 12V DC
- Operating Current: 60mA per module

Absolute Maximum Ratings at Ta=25℃

Parameter	MAX.	Unit
Power Dissipation per meter	0.72	W
Operating Temperature Range	-40℃ to +80℃	
Storage Temperature Range	-40℃ to +80℃	

Dimension Drawing





Electrical Optical Characteristics at Ta=25℃

Part Number	Water Proof	Source Color	Dominant Wavelength λd				Luminous Flux				Viewing Angle
			Min.	Typ.	Max.	Unit	Min.	Typ.	Max.	Unit	
WW-LMAT5L02SWA-12	Yes	White	7000	----	9000	K	----	**24**	----	**lm**	120°
WW-LMAT5L02SWWA-12	Yes	Warm White	3000	----	3500	K	----	**20**	----	**lm**	120°
WW-LMAT5L02SRA-12	Yes	Red	460	----	470	nm	----	**5**	----	**lm**	120°
WW-LMAT5L02SGA-12	Yes	Green	515	----	525	nm	----	**12**	----	**lm**	120°
WW-LMAT5L02SBA-12	Yes	Blue	620	----	630	nm	----	**4**	----	**lm**	120°
WW-LMAT5L02AYA-12	Yes	Yellow	585	----	595	nm	----	**6**	----	**lm**	120°

Notes:
1. All dimensions are in millimeter.
2. Tolerance of measurement is ±0.25mm(.01") unless others otherwise noted.
3. Tolerance of measurement of luminous intensity is ±15%
4. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity. Tolerance of measurement of angle is ±10 degree
5. Caution in ESD: Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED.All devices, equipment and machinery must be properly grounded.
6. The dominant wavelength λd is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
7. Specifications are subject to change without notice.

CAUTIONS

1. Storage
   a. The Flexible LED Strip should be stored at stored at 30°C or less and 70%RH or less after being shipped and the storage life limits are 3 months.
   b. If the Flexible LED Strip is stored more then 3 months, they can be stored for a year in a sealed container with a nitrogen atmosphere and moisture absorbent material.
   c. Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.
2. Static Electricity
   a. Static electricity or surge voltage damages the Flexible LED Strip .
   b. It is recommended that a wristband or an anti-electrostatic glove be used when handling the Flexible LED Strip.
   c. All devices, equipment and machinery must be properly grounded.
   d. It is recommended that measures be taken against surge voltage to the equipment that mounts the Flexible LED Strip
3. Heat Generation
   a. Thermal design of the end product was most importance. Please consider the heat generation of the Flexible LED Strip when making the system design.
   b. The thermal resistance of the circuit board and density of Flexible LED Strip placement on the board, as well as other components was the important factor affecting the coefficient of temperature increase per input electric power.
   c. It must be avoid intense heat generation and operate within the maximum ratings given in the specification.
   d. The operating current should be decided after considering the ambient maximum temperature of Flexible LED Strip.
4. Others
   a. Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the Flexible LED Strip with matrix drive.
   b. The Flexible LED Strip described in this brochure is intended to be used for ordinary electronic equipment (such as office equipment, communications equipment, measurement instruments and household appliances). Consult Wah Wang's sales staff in advance for information on the applications in which exceptional quality and reliability are required, particularly when the failure or malfunction of the Flexible LED Strip may directly jeopardize life or health (such as for airplanes, aerospace, submersible repeaters, nuclear reactor control systems, automobiles, traffic control equipment, life support systems and safety devices).
   c. User shall not reverse engineer by disassembling or analysis of the Flexible LED Strip without having prior written consent from Wah Wang. When defective Flexible LED Strip is found, the User shall inform Wah Wang directly before disassembling or analysis.
   d. The formal specifications must be exchanged and signed by both parties before large volume purchase begins.
   e. The appearance and specifications of the product may be modified for improvement without notice.