

SUPERLIGHTINGLED



This 18W/m UVC soft lamp strip module adopts constant current drive for each light source, and every 3 lights are cut to any length in a group.



FEATURES/

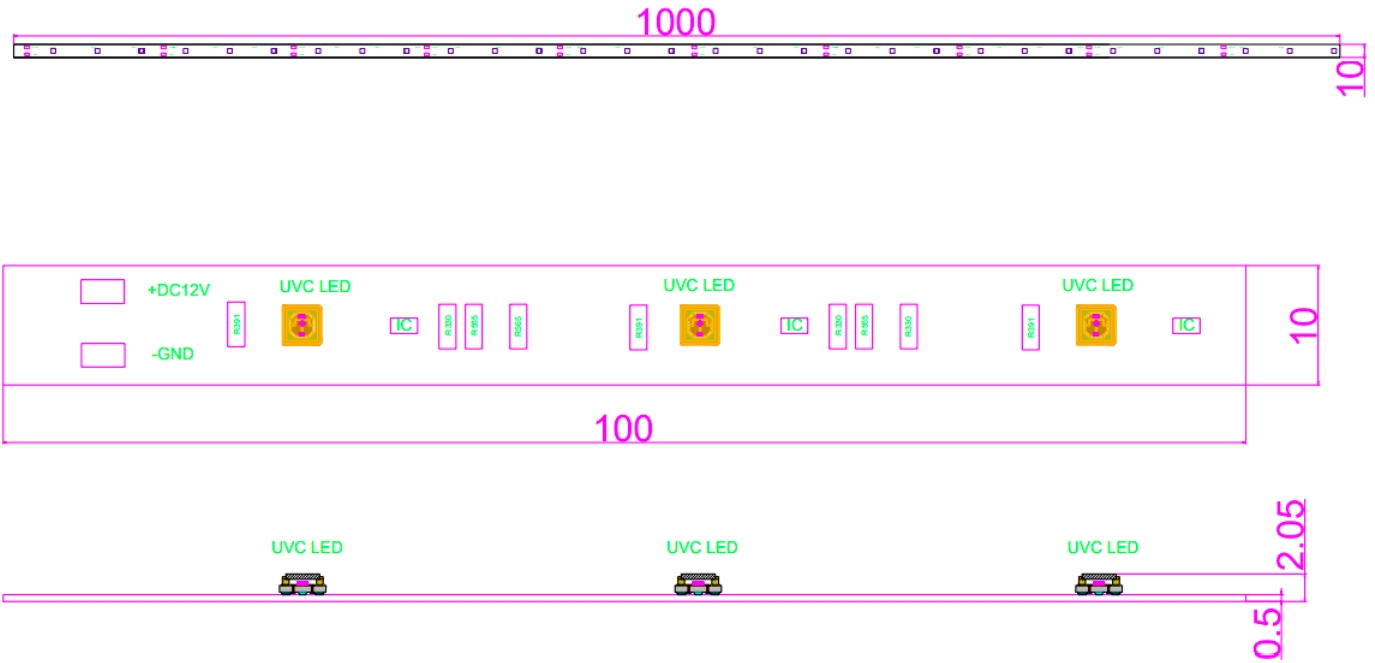
- Deep UV LED with emission wavelength between and 270-280nm and 395-400nm
- Constant current circuit
- Low thermal resistance/
- Wide viewing angle at 120°
- Superior ESD protection
- Environmental friendly, RoHS compliance

APPLICATIONS/

- Personal hygiene
- Portable devices
- Water disinfection
- Surface disinfection
- Air disinfection

Note: The information in this document is subject to change without notice.

PACKAGE DIMENSIONS



Notes/ :

1. All dimensions in millimeters.
2. Thickness tolerance of copper plate is ± 0.02 mm.
3. Thickness tolerance of product is ± 0.05 mm.
4. Tolerance is ± 0.1 mm unless otherwise noted.

30 lamp electric parameters per meter**(Ta=25°C)**

Parameter 项目名称	Symbol 符号	Value 规格	Unit 单位
Forward current 正向电流	I_F	1500	mA
Power Dissipation 消耗功率	P_d	18000	mW
Operating Temperature 工作温度	T_{opr}	-25~+110	°C
Storage Temperature 储存温度	T_{stg}	-40~+80	°C
Soldering Temperature 焊接温度	T_{sld}	Reflow Soldering: 260°C for 10 seconds	
结温 (Junction Temperature)	T_s	80	°C

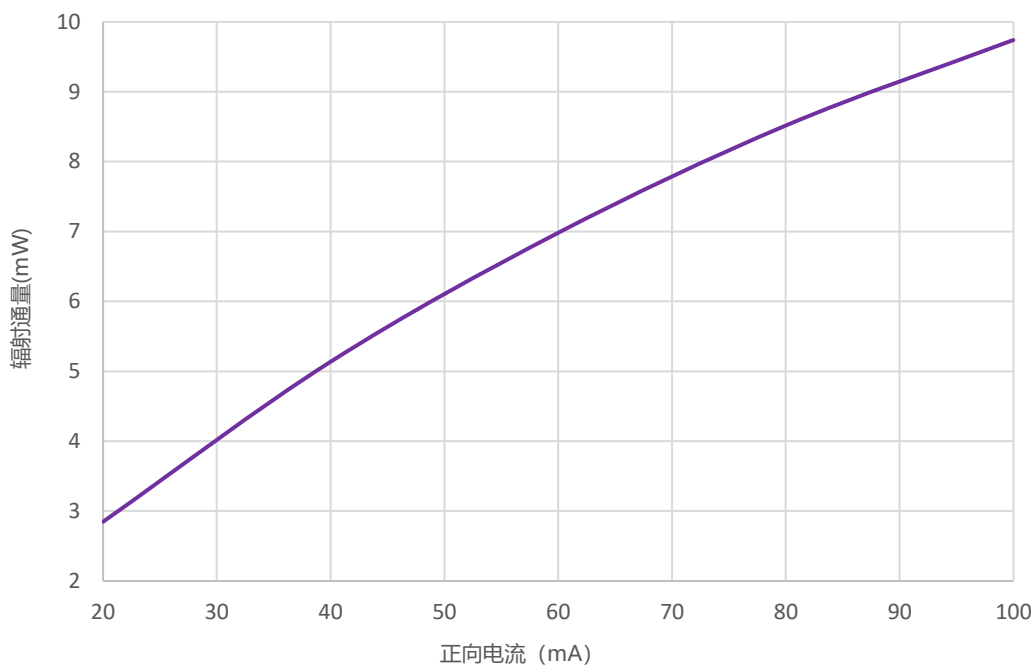
CHARACTERISTICS (Ta=25°C)

Parameter 项目名称	Sym bol 单位	Condition 条件	Min 最小值	Typ 中间值	Max 最大值	Unit 单位
Reverse Current 反向漏电流	I_R	$V_R=12V$	--	--	3	uA
Forward voltage 正向电压	V_F	$I_F=1500mA$		12		V
Viewing Angle 发光角度	$2\theta_{1/2}$	$I_F=1500mA$	--	120	--	deg.
UVC Radiant Flux 辐射功率	Φ_e	$I_F=1500mA$		150		mW
peak wavelength 峰值波长	λ_{P1}	$I_F=1500mA$	390	395	400	nm
peak wavelength 峰值波长	λ_{P2}	$I_F=1500mA$	270	275	280	nm

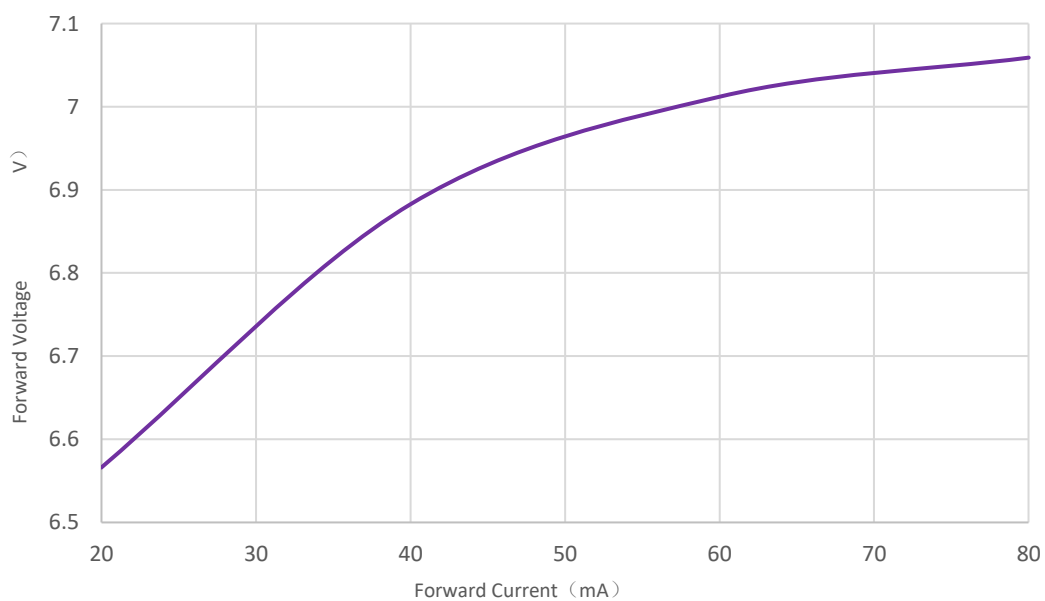
Notes/ :

1. Radiant Flux is measured with an accuracy of $\pm 5\%$.
2. peak wavelength is measured with an accuracy of $\pm 5\%$.
3. All measurements were made under the standardized environment of Tuozhan

RELATIVE RADIANT FLUX VS. CURRENT (T_j=25°C)—UVC

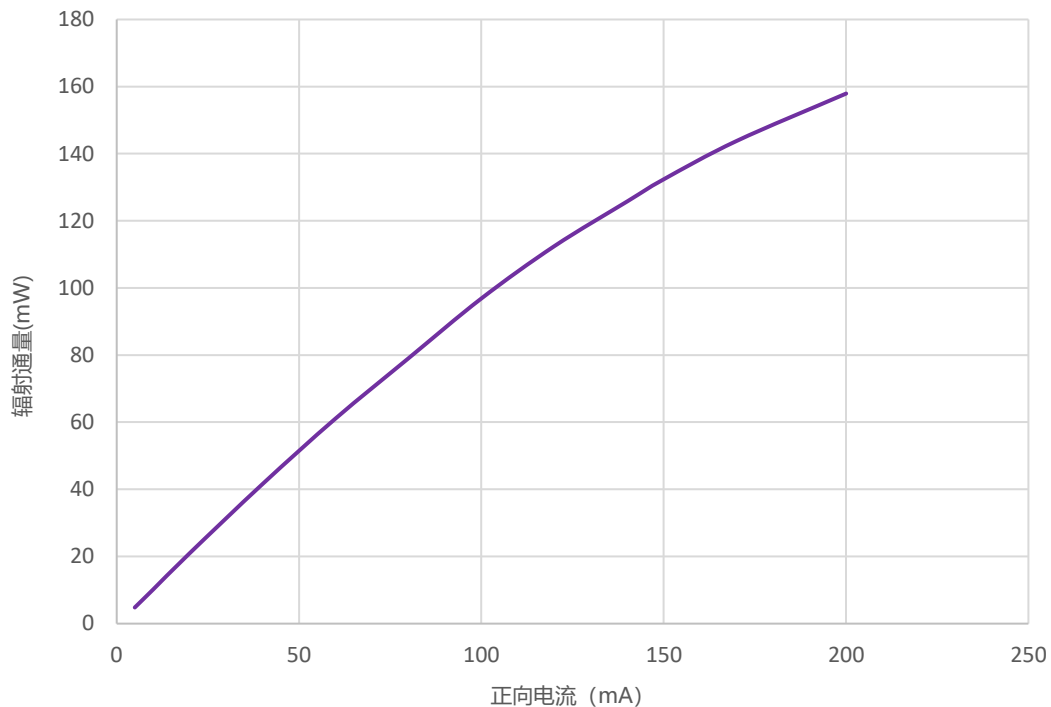


ELECTRICAL CHARACTERISTICS (T_j=25°C)—UVC



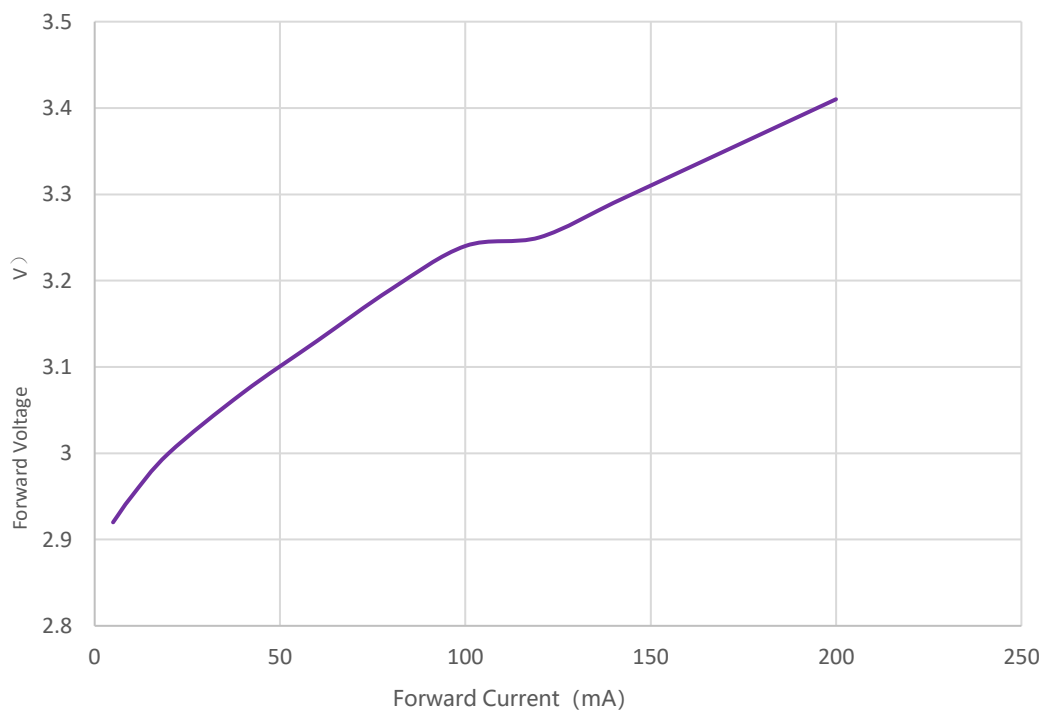
RELATIVE RADIANT FLUX VS. CURRENT

($T_j=25^\circ\text{C}$)—UVA



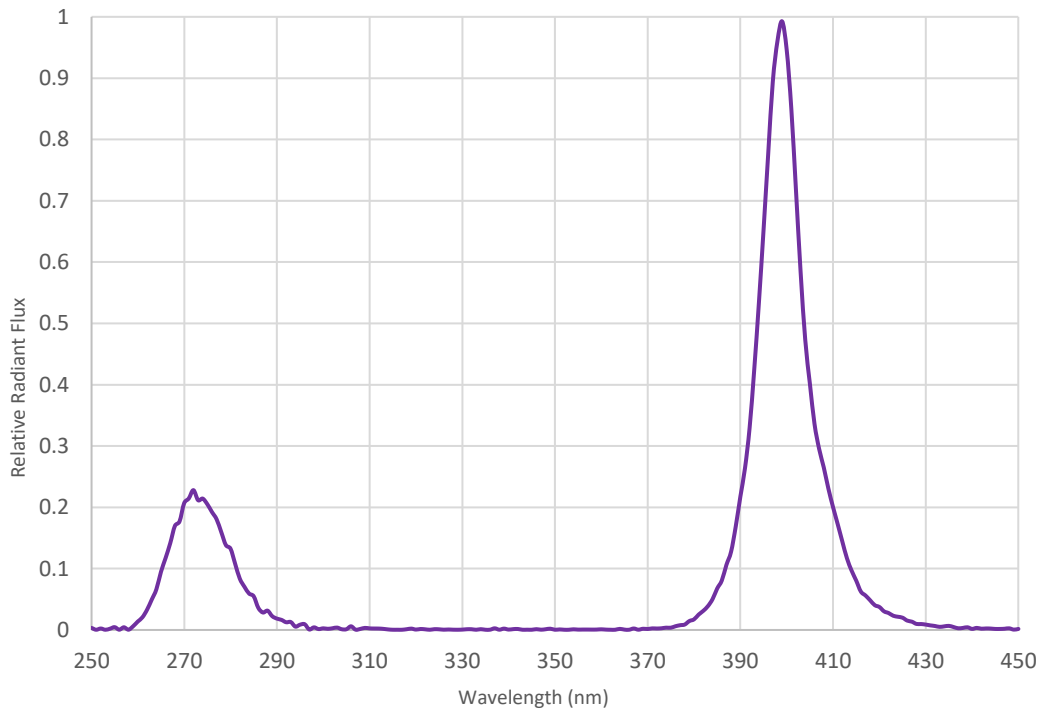
ELECTRICAL CHARACTERISTICS

($T_j=25^\circ\text{C}$)—UVA

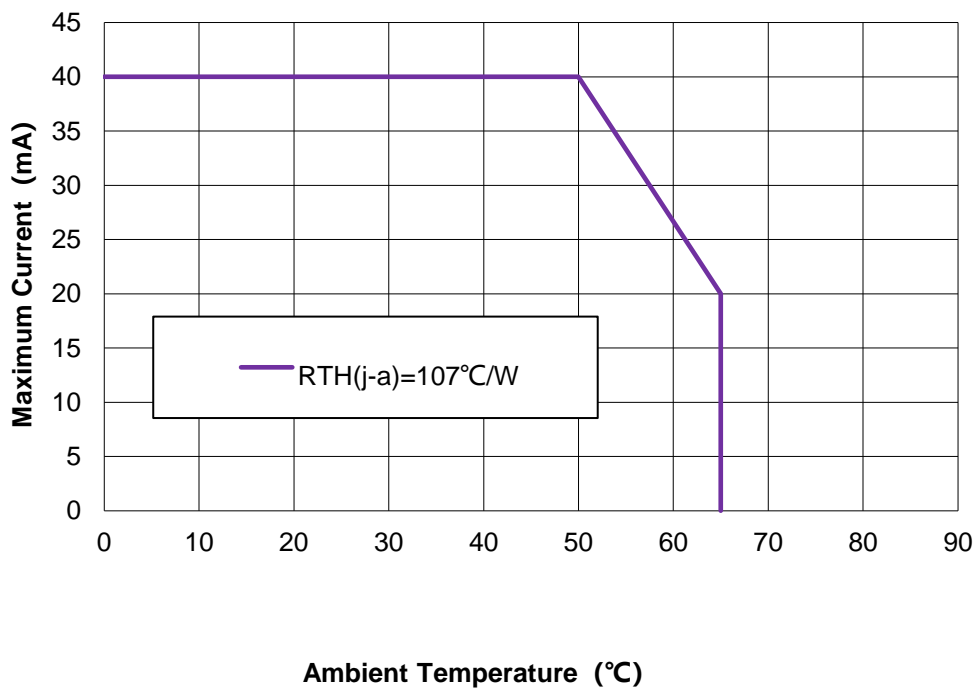


RELATIVE SPECTRAL POWER DISTRIBUTION

($T_j = 25^\circ\text{C}$)



CURRENT VS. AMBIENT TEMPERATURE



Reliability Test Items

Test Items 测试项目	Test Duration 测试时长	Number of Damaged 不良数
Steady State Operating Life of High Temperature (HTOL) Ts=85°C, IF=Max 高温点亮稳态老化Ts=85°C, IF=最大值	1000hrs	0/20
Steady State Operating Life of Low Temperature (LTOL) Ta=-40°C, IF=Max 低温点亮稳态老化Ts=-40°C, IF=最大值	1000hrs	0/20
Pulse Wet Operating Life of High Temperature (PWHTOL) 高温高湿通断电老化 60°C/90%RH, IF30mins ON/30min OFF	500hrs	0/20
High Temperature Storage (HTS) 高温存储 80°C	1000hrs	0/20
Low Temperature Storage (LTS) 低温存储 -40°C	1000hrs	0/20
Thermal Shock (TS) -45°C~125°C 30min dwell 20sec transfer 冷热冲击-45°C 30min~125°C 30min, 转换时间20秒	100cycles	0/20
Solder Resistance (SR) 265°C, 3X MSL 阻焊测试 (3遍潮气敏感度试验后)	5sec	0/20
Solder Ability (SA) 245°C5sec, 95% coverage 可焊性 95%覆盖	5sec	0/11
Mechanical Shock (MS) 1500G 0.5msec pulse shock 机械冲击(MS) 1500G 0.5毫秒脉冲冲击	Each6 axis	0/6
Random Vibration (RV) 随机振动 6G RMS, 10-2000Hz, 10min	Per axis	0/6
Variable Vibration Frequency (VVF) 10-2000-10Hz, log or linear sweep rate, 20G for 1 min, 1.5mm each apply 3x per axis over 变频振动(VVF) 10-2000-10Hz, 对数或线性扫频, 20G, 1分钟, 1.5mm, 每轴3遍以上	6hrs	0/6
Salt Spread (SS) 35°C, 30g/m2/day 盐雾试验35°C,30克/平方米/天	48hrs	0/11

Item 项目	Symbo 符号	Test Condition 测试条件	Criteria for Judgment 判定标准	
			Min. 最小	Max. 最大
Forward Voltage 正向电压	V _F	IF=Typical Current 典型电流		U.S.L x1.1
Radiant Flux 光功率	mW	IF=Typical Current	L.S.L x0.7	
peak wavelength 峰值波长	nm	IF=Typical Current		U.S.L x1.1

PRECAUTION FOR USE

(1) This device should not be used in any type of fluid such as water, oil, organic solvent, etc. When washing is required, IPA should be used.

(2) When the LEDs are illuminating, operating current should be decided after considering the ambient maximum temperature.

(3) LEDs must be stored to maintain a clean atmosphere. If the LEDs are stored for 3 months or more after being shipped from TuoZhan, a sealed container with a nitrogen atmosphere should be used for storage.

(4) The LEDs must be used within seven days after opening the moisture proof packing. Repack unused Products with anti-moisture packing, fold to close any opening and then store in a dry place.

(5) The appearance and specifications of the product may be modified for improvement without notice.

(6) This LED is sensitive to the static electricity and surge. It is recommended to use a wrist Band or anti-electrostatic glove when handling the LEDs.

(7) On manual soldering, a solder tip must be needed as grounded for usage. If over voltage which exceeds the absolute maximum rating is applied to LEDs, it will cause damage LEDs and result in destruction. Damaged LEDs will show some unusual characteristics such as leak current remarkably increase ,turn-on voltage becomes lower and the LEDs get unlighted at low current.

(8)Warm prompt "The UV damage eyes, Do not stare at the light source, And don't shine a light into someone's eyes"

