



乐清市裕林电子有限公司

Yueqing Yulin Electronic Co., Ltd

Address: FL.6, No.19 Keaisi Road, Xiangyang Industrial, Liushi, Yueqing, Wenzhou, Zhejiang, China 325600
Tel: 0577-27878383 Fax: 0577-27878383
website: www.filn.com

SPECIFICATION FOR APPROVAL

规格说明书

CUSTOMER'S CODE

本厂代码:

DESCRIPTION

品 名: 金属指示灯 Metal Indicator Light

SPECIFICATION

规 格: 12mm

DATE

编制日期: 2019-04-08

PART NO.

本厂型号: FL1M-12FW-1

REFERENCE No.

档案编号:

Form Designer 编 制	Qualified By 审 核	Approved By 批 准
陶 松	瞿 斌	陈 平



乐清市裕林电子有限公司

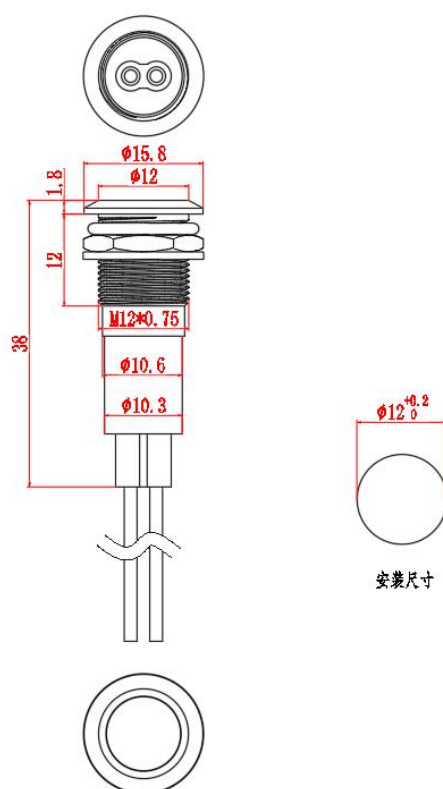
Yueqing Yulin Electronic Co., Ltd

Address: FL.6, No.19 Keaisi Road, Xiangyang Industrial, Liushi, Yueqing, Wenzhou, Zhejiang, China 325600
Tel: 0577-27878383 Fax: 0577-27878383
website: www.filn.com

1. 图片 Picture:



2. 图纸 Drawing:





乐清市裕林电子有限公司

Yueqing Yulin Electronic Co., Ltd

Address: FL.6, No.19 Keaisi Road, Xiangyang Industrial, Liushi, Yueqing, Wenzhou, Zhejiang, China 325600
Tel: 0577-27878383 Fax: 0577-27878383
website: www.filn.com

3. 配件材料 Component Material

名称 Component Name	材料 Material
外壳 Shell	铜合金 Copper Alloy
灯座 Lamp holder	PA66
灯罩 Lampshade	PC
发光源 Luminescent Source	LED
电阻 Resistance	碳膜电阻 Carbon Film Resistance
导线 Wire Leading	PVC
螺母 Nut	铜合金 Copper Alloy
O 型圈 O-ring	硅胶 Silica Gel
梅花垫片 Gasket	A3 铁 A3 Iron

4. 性能参数 Performance Parameter

项目 Items	参数 Parameter
电压 Voltage	3-250V
额定电流 Rated Current	20mA
额定功率 Rated Power	0.2W
绝缘耐压 Insulation and Voltage Resistance	2000V/10s
工作寿命 Working Life	10, 0000h
耐寒 Cold-Resistant	-40°C
耐热 Heat-Resistant	80°C
颜色 LED color	R/G/Y/B/W



乐清市裕林电子有限公司

Yueqing Yulin Electronic Co., Ltd

Address: FL.6, No.19 Keaisi Road, Xiangyang Industrial, Liushi, Yueqing, Wenzhou, Zhejiang, China 325600
Tel: 0577-27878383 Fax: 0577-27878383
website: www.filn.com

5.详细图片 LED Detailed Picture



6. LED Specification 说明

6.1 Absolute Maximum Rating 极限工作参数

项目 Item	符号 Symbol	额定值 Rated Value	单位 Unit
瞬间脉冲电流 Instantaneous pulsed current	IFP	20	mA
反向电压 Reverse Voltage	VR	5	V
功率 Power	PD	60	mW
工作温度 Working Temp.	TOPR	-40~+80	℃
储存温度 Storage Temperature	TSTG	-40~+100	℃
无铅焊接温度 Lead-free Soldering Temperature	TSOL	Max. 260℃ for 3sec Max. 260度不超过3秒	

注意事项 Notes:

1) 产品光电性能级别，各不同级别的产品光电性能有所差异，请客户根据己方使用条件自行决定使用方法。



乐清市裕林电子有限公司

Yueqing Yulin Electronic Co., Ltd

Address: FL.6, No.19 Keaisi Road, Xiangyang Industrial, Liushi, Yueqing, Wenzhou, Zhejiang, China 325600
Tel: 0577-27878383 Fax: 0577-27878383
website: www.filn.com

Product photoelectric performance level, different levels of product photoelectric performance is different, please customers according to their own conditions of use to decide the use method.

2) 光强度和主波长的测量根据人眼响应曲线的 CIE 国际标准校正。

The measurement of light intensity and dominant wavelength is corrected according to the CIE international standard of the human eye response curve.

3) 中心轴亮度的 50%时单边的发光角度为 $\theta_{1/2}$,, $2\theta_{1/2}=\theta_{1/2}$, $+\theta_{1/2}$, .

When the brightness of the central axis is 50%, the luminous angle of one side is $\theta_{1/2}$,, $2\theta_{1/2}=\theta_{1/2}$, $+\theta_{1/2}$.,

4) 发光强度的测量公差为 $\pm 15\%$ 。

The measurement tolerance of luminous intensity is $\pm 15\%$.

5) 电压的测量公差为 ± 0.1 V。

The voltage is measured with a tolerance of ± 0.1 V.

6) 色座标 X、Y 的测量公差为 ± 0.015 。

The measurement tolerance of color coordinates X and Y is ± 0.015 .

6.2 产品光电特性 Product Optoelectronic Characteristics (Ta = 25°C)

项目 Item	符号 Symbol	条件 Condition	最小值 Min.	平均值 Average Value	最大值 Max.	单位 Unit
顺向电压 Forward Voltage	VF	IF=20mA	2.8	--	3.2	V
反向电流 Reverse Current	IR	VR=5v	--	--	5	μ A
角度 Angle	$2\theta_{1/2}$	IF=20mA	--	60	--	deg
亮度 Brightness	ϕ V	IF=20mA	500	--	800	mcd
建议使用电流 Recommend Current	IF	--	--	20	--	mA
颜色 Color	cct& λ d	IF=20mA	520	--	525	nm
结点温度 Junction Temperature	T _J	IF=20mA	--	125	--	°C
热阻 Thermal Resistance	R _{JP}	IF=20mA	--	8	--	°C/W



乐清市裕林电子有限公司

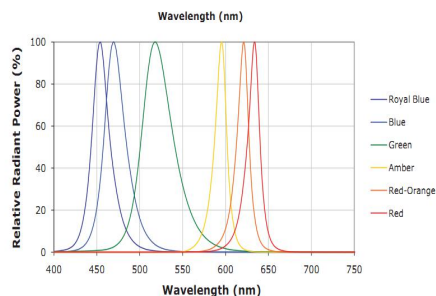
Yueqing Yulin Electronic Co., Ltd

Address: FL.6, No.19 Keaisi Road, Xiangyang Industrial, Liushi, Yueqing, Wenzhou, Zhejiang, China 325600

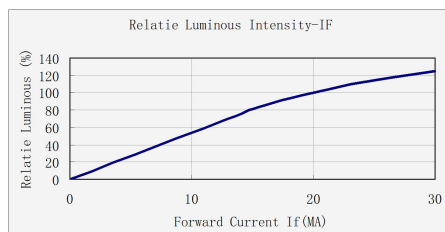
Tel: 0577-27878383

Fax: 0577-27878383

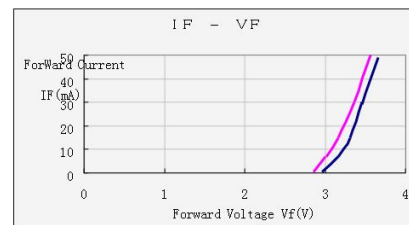
website: www.filn.com



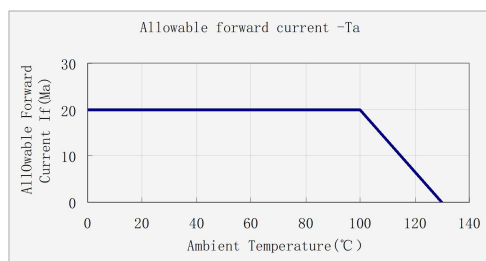
波长特征
Wavelength characteristics



光强与正向电流曲线图
Light intensity and forward current curves



反向电流与正向电压曲线图
Reverse current vs. forward voltage plot



最大正向直流电与温度曲线图
Maximum Forward DC vs. Temperature Graph

