

产品规格书 DATA SHEET

Part No: MHL3014GTD REV.1

本产品符合 ROHS 指令有关限制有害物质的环保要求.

日期 DATE	拟制 PREPARED	审核 VERIFIED	批准 APPROVED
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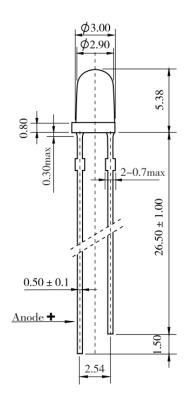
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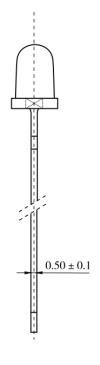


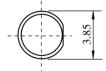
P/N: MHL3014GTD

LED LAMP

产品外观尺寸 PACKAGE DIMENSIONS







注意 NOTES:

1. 所有尺寸均为 mm(英寸)

All dimensions are in millimeters. (inches)

2. 如无特殊说明,公差为 0.25mm(0.010")

Tolerance is ±0.25mm(0.010") unless otherwise specified.

3. 溢胶最大 1.5mm

Protruded resin under flange is 1.5mm(0.059 ") max.

4. 此 LED 防静电(人体模型)<-2000V

Highlight <-2000V the led can withstand the max static level when assembling or operation (HBM)



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产品特性 FEATURES

- 高可靠性和高稳定性 High intensity and reliability
- 高品质、和低功耗、低成本 High quality, Low power requirement and low cost
- IC 易兼容、易装配 IC compatible, Easy assembly
- 符合 RoHS 指令要求 ROHS COMPLIANC
- 无铅产品 Pb FREE PRODUCTS
- 静电承受能力 2000V(HBM) ESD 2000V(HBM).

产品特征 Description

- 3mm 直径封装
- 3mm diameter package

 为高亮度应用而设计的产品
 - The series specially designed for applications requiring higher brightness.
- 优秀的室内环境性能
 - Superior performance in indoor environment.
- 发光颜色 Emitted color:
 - 1. 黄绿色: Yellow Green
 - 2.
 - 3.
- 晶片材质 Chips materials:
 - 1. GaP/GaP
 - 2.
 - 3
- 胶体类型 Lens Type

 绿色雾状 Green Diffused



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极限参数 Absolute Maximum Ratings(Ta=25℃)

参数	符号	极限值	单位
Parameter	Symbol	Rating	Unit
单字节功耗	PAD	00	2014
Power Dissipation Per Segment	PAD	80	mw
最大峰值电流			
Peak Forward Current Per Segment	IPF	100	mA
(1/10 duty cycle, 0.1ms pulse width)			
最大使用电流	IAF	20	
Continuous Forward Current Per segment	IAF	30	mA
反向电压	VR	5	\/
Reverse Voltage	VK	3	V
工作温度	TOPR -25℃ to		
Operating Temperature Range			0 65 (
储藏温度	TSTG -30℃ to 100℃		0 °C
Storage Temperature Range	TSTG	-30 0 10 100 0	

光电特性 Optical-Electrical Characteristic(Ta=25℃)

符号	参数	测试条件	最小	标准	最大	单位
Symbol	Parameter	Test Condition	Min	Тур	Max	Unit
VF	正向压降	IF = 20mA	-	2.2	2.6	V
V F	Forward Voltage	IF = ZUIIIA				
IR	反向漏电流	VR=5V	-	-	50	uA
IN	Reverse Current	VV-2V				
3 D	主波长	IF = 20mA	-	572	-	nm
λD	Dominant Wavelength	IF = ZUIIIA				
λР	峰值波长	IF = 20mA	-	568	-	nm
λP	Peak Wavelength	II = 20IIIA				
Λ 2	半波宽	IF = 20mA	-	30	-	nm
Δλ	Spectral Line Half—Width	IF = ZUIIIA				
2θ1/2	半视角	15-20ma ^	-	50	-	deg
	Half Intensity Angle	IF=20mA				
lv	发光强度	IF = 20mA	17	24		mcd
	Luminous Intensity	IF = ZUIIIA			-	

注意 Notes:

1.焊接时间小于等于 5 秒 Soldering time≤5 seconds.

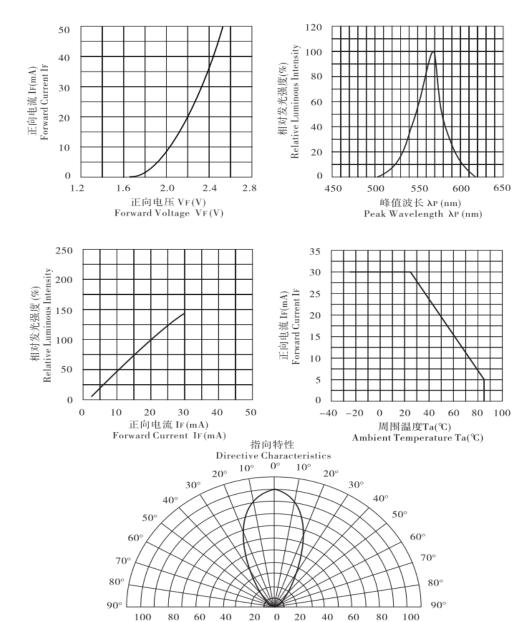
2.IPF 测试环境 condition: 脉冲 pulse width ≤1ms ,循环 duty cycle ≤1/10.



P/N: MHL3014GTD

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光电特性图 Typical Electrical Characteristic Curves(Ta=25℃)



Note

- 1. 发光强度取平均值 Luminous Intensity is a average value
- 2. 发光强度公差: ±10% Tolerance of Luminous Intensity: ±10%
- 3. 正向电压公差: ±0.1V Tolerance of Forward Voltage: ±0.1V

相对发光强度 Relative Luminous Intensity (%)



P/N: MHL3014GTD

LED LAMP

标签 Label

连云港美华电子科技有限公司

P/N:MHL3014GTD

L/N: xxxxxxxxx

QTY:xxxx pcs

DATA: xxxxx

● P/N: 型号 Part Number

● LOT No: 生产单号 Lot Number

● QTY: 数量 Packing Quantity

● DATA:生产日期 Data Code

● IV:亮度 Luminous Intensity(参考 Reference)

● VF:电压 Forward Voltage(参考 Reference)



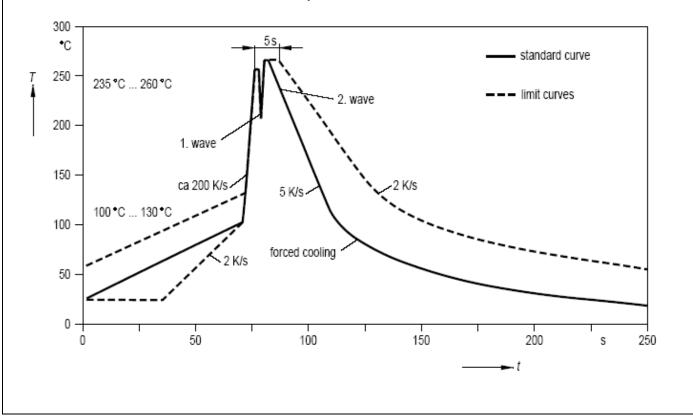
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焊接 SOLDERING

方法	焊接条件	备注
METHOD	SOLDERING CONDITIONS	REMARK
		焊接点不要在距封装 2mm 以内
浸焊 DIP SOLDERING	沐浴温度: 260℃ 最高	Solder no closer than 2mm from the
	Bath temperature: 260°C max	base of the package
	浸润时间:5秒1次	建议使用树脂助焊剂
	Immersion time: within 5 sec 1 time	Using soldering flux," RESIN FLUX" is
		recommended.
烙铁焊 SOLDERING IRON	烙铁功率要小于 30W	焊接时烙铁头请勿碰到 PIN
	Soldering iron: 30W or smaller	During soldering, take care not to press
	烙铁头温度小于: 350℃	the tip of iron against the PIN
	Temperature at tip of iron: 350°C or lower	(阻止热量直接传到 PIN 上.)
	焊接时间:5秒1次	(To prevent heat from being transferred
	Soldering time: within 5 sec 1 time	directly to the PIN.)

浸焊温度曲线 DIP SOLDERING profile



P/N: MHL3014GTD

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储藏 STORAGE

1. LED 在出厂后可在温度 30 度以下,湿度 70%以下的环境内保存 3 个月时间 The LED should be stored at 30℃ or less and 70% RH or less after being shipped from MH and the storage life limits are 3 months.

- 2. 美华的 LED 是铁合金镀锡的,表面的镀层会被腐蚀性的气体侵蚀,因此不要将它保存在可能导致支架氧化,失去光泽或变色的环境,这些腐蚀可能会导致焊接困难,建议尽快使用 Meihua's LED lead frames are comprised of a stannum plated iron alloy. The silver surface may be affected by environments which contain corrosive gases and so on. Please avoid conditions which may cause the LED to corrode, tarnish or discolor. This corrosion or discoloration may cause difficulty during soldering operations. It is recommended that the LED be used as soon as possible.
- 3. 请避免保存在温度变化明显,尤其是高湿度的地方 Please avoid rapid transitions in ambient temperature, especially, in high humidity environments where condensation can occur.

使用注意事项 Application Restrictions

- 1. 本文档中所描述的规范。上述规格可变更不通知。美华将对上述规格的材料更改的保留权。specification described in this document. Above specification may be changed without notice. Meihua will reserve authority on material change for above specification.
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P/N: MHL3014GTD

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4. 静电放电(静电放电)ESD (Electrostatic Discharge

产品敏感的静电或冲击电压。当使用产品时静电放电会损坏模具及其可靠性。对静电放电的措施强烈推荐: The products are sensitive to static electricity or surge voltage. ESD can damage a die and its reliability. When handling the products, the following measures against electrostatic discharge are strongly recommended:

消除电荷 Eliminating the charge

接地的手环,防静电鞋,衣服和地板 Grounded wrist strap, ESD footwear, clothes, and floors

接地的工作站设备和工具 Grounded workstation equipment and tools 导电材料的防静电工作台/架子 ESD table/shelf mat made of conductive materials 正确的接地用于所有装置、设备和机器生产过程所必须。在产品设计时应考虑冲击保护。 Proper grounding is required for all devices, equipment, and machinery used in product assembly. Surge protection should be considered when designing of commercial products.

如果工具或设备含有绝缘如玻璃或塑料材料,需要做下列静电放电预防措施: If tools or equipment contain insulating materials such as glass or plastic, the following measures against electrostatic discharge are strongly recommended:

用导电材料耗散静电电荷 Dissipating static charge with conductive materials 保持环境的湿度 Preventing charge generation with moisture

使用离子风扇中和静电 Neutralizing the charge with ionizers

5. 发光二极管正向电流方向使用,驱动电路的设计必须使 LED 在关闭的状态下不经受正向或逆向电压,如果反向电压不断应用于发光二极管,它可以导致 LED 损坏 The LEDs should be operated with forward bias. The driving circuit must be designed so that the LEDs are not subjected to forward or reverse voltage while it is off. If reverse voltage is continuously applied to the LEDs, it may cause migration resulting in LED damage.

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AM27ZGC03 APB3025SGNC APFA3010SURKCGKQBDC APHK1608VGCA APT2012QGW CLX6D-FKB-CN1R1H1BB7D3D3 LTST008BGEW LTST-C250KGKT LTW-010DCG LTW-020ZDCG LTW-21TS5 LTW-220DS5 42-21UYC/S530-A3/TR8 598-8330-117F

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