深 圳 市 晶 盟 电 子 科 技 有 限 公 司
Shen zhen jing au electronic technolodg to LTD

产品规格说明书

JM-BF0619倒装蓝光

高品质 LED 芯片制造商

Leading LED Chip Manufacturer in China

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1. 产品描述

1.1 产品特征及应用 FEATURE AND APPLICATION

免打线，系统性成本节约

Wire-bond free, system cost reduction

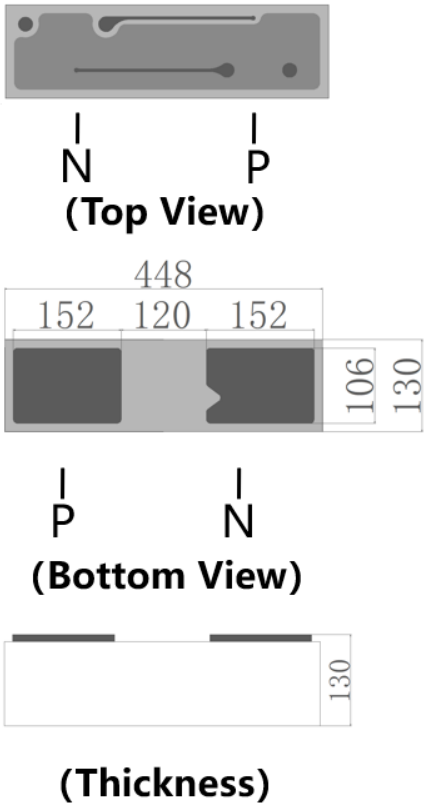
超电流使用下高可靠性、低电压

Good reliability and lower voltage under high driving current

低热阻，有效解决芯片散热问题

Lower thermal resistance, better chip heat dissipation

应用市场/Application Market	户内外照明
封装形式/ PKG Type	COB、SMD
驱动电流/Driving Current	5mA
电压/Vf	2.6-2.8V



1.2 外形尺寸 Outline Dimensions

尺寸: 长×宽/Chip Size: L×W	(130±35) × (448±35) μm²
芯片厚度/ Chip thickness	(130±15) μm
P 电极/P bonding pad	(106±10) × (152±10)μm²
N 电极/N bonding pad	(106±10) × (152±10)μm²

1.3 材料和结构 Material and Structure

衬底材料/ Substrate	蓝宝石 Sapphire
外延结构/Epitaxy structure	InGaN/GaN MQW
P 电极（阳极）/P electrode(anode)	金/Au
N 电极（阴极）/N electrode(cathode)	金/Au

2. 最大绝对额定值（封装后）Absolute Maximum Rating(After Package)

参数/ Parameter	符号/ Symbol	条件/ Condition	值/ Range	单位/Unit
正向峰值电流（1/10 占空比@1KHZ） Ta=23℃	If	1/10 占空比 @1KHZ	≤20	mA
最大额定电流/Maximum Rated Current	Imax	Ta=23℃	≤15	mA
存储温度（仅芯片）/ Storage Temperature(chip only)	Tstc	chip	-40～+85	℃
结温/ Junction Temperature	Tj	----	≤150	℃
封装温度/Packaging Temperature	----	----	≤280（10S）	℃

说明 Note

- ✧ 最大额定电流为单颗芯片在铝基板或铜基板等金属基板或者陶瓷基板固晶使用，且保证 LED 芯片不被破坏下方可使用（Tj ≤125℃）；一般封装后长时间使用电流不超过最大额定电流的 90%。
- ✧ The maximum rated current is used when the chip is die-attached on the Al, Cu or other metal PCB or ceramic substrate and it is guaranteed not damage the LED (Tj ≤125℃).
  After packaging, the long duration current cannot exceed 90% of the maximum rated current
- ✧ 本产品在正向电流及正向电压下可使用，不适合在逆向电压下使用。
- ✧ This product is used under the forward current and forward voltage condition, inappropriate under the r everse voltage condition.
- ✧ 芯片在蓝膜上保存时，蓝膜的保存温度最佳为 5～35℃。
- ✧ When the chip is preserved on the blue tape, the preferred temperature of the blue tape is 5~35℃.
- ✧ 该产品不可用于热压焊
- ✧ The product can not be used for hot press welding.
- ✧ 封装温度应≤280℃（10s）
- ✧ The Packaging Temperature should be ≤280℃（10s）.

3. 光电性能特性 Optical and Electrical Characteristics(Ta=23℃)

参数 Parameter	料号（Code）	工作条件 Test Condition	最小值 Min.	最大值 Max.	单位 Unit
辐射通量 Radiant Flux	L292	@5mA	6	6.5	mW
	L293		6.5	7	
	L294		7	7.5	
	L295		7.5	8	
主波长 Dominant Wavelength	W46	@5mA	452	454	nm
	W47		454	456	
	W48		456	458	
	W49		458	460	
	W50		460	462	
	W51		462	464	
正向电压 Forward Voltage	K	@5mA	2.6	2.7	V
	V		2.7	2.8	
防静电 Anti-static	-	HBM	2	-	KV
反向电流 Reverse Current (Ir)	-	@-7V	-	1	μA
反向电压 Reverse Voltage (Vr)	-	@-10μA	10	-	V
开启电压 Cut-in voltage（Vfin）	-	@1μA	2.2	-	V

说明 Note

- ✧ 所有数据均是基于测试仪器上实施的裸晶芯片测试，99%的芯片符合标准。All data are based on measurements by HCSemiTek’ sequipment on bare chips within 99% of the nominal value
- ✧ 主波长的测试误差为±1.0 nm。Measurement error for dominant wavelength is ±1.0nm
- ✧ 发光强度的测试误差为±5%。Measurement error for luminous intensity is ±5%
- ✧ 正向电压的测试误差为±0.1V。Measurement error for forward voltage is ±0.1V
- ✧ 此产品适用于照明应用，如果用于照明外的高端领域，如背光等，对此不作质量保障
- ✧ This product is suitable for lighting applications. HCsemitek doesn’ t guarantee the quality, If it was used in high-end arears, such as backlighting.

4. 特性曲线 Characteristics Curves

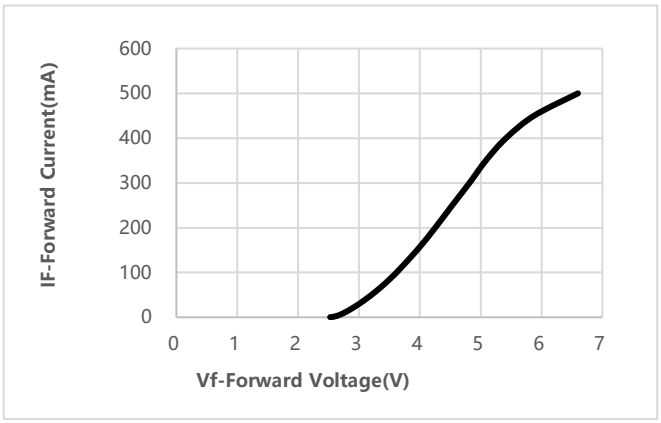


图 1 正向电压与电流曲线@23°C
Forward Voltage Vs. Forward Current@23°C

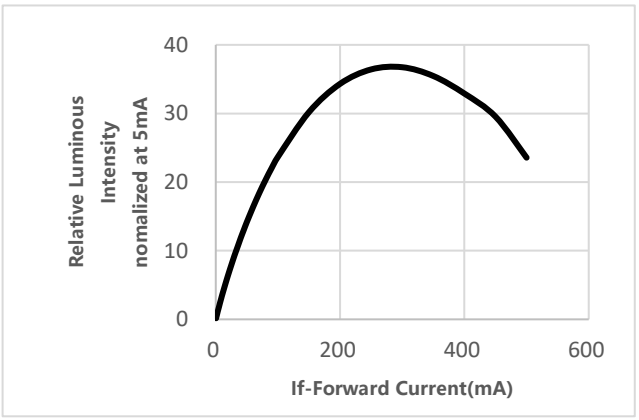


图 2 正向电流与相对发光强度曲线@23°C
Forward Current Vs. Relative Luminous Intensity@23°C

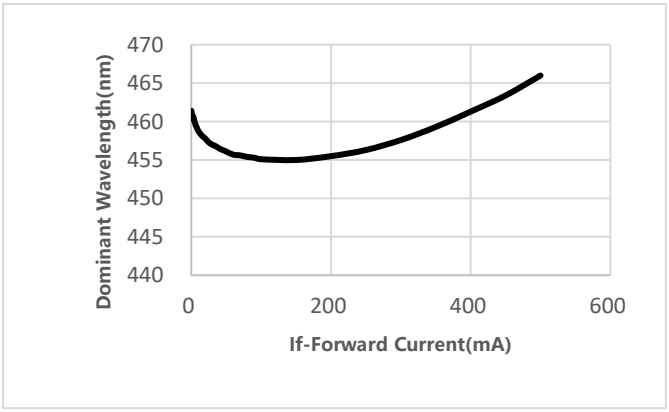


图 3 正向电流与波长曲线@23°C
Forward Current Vs. Dominant Wavelength@23°C

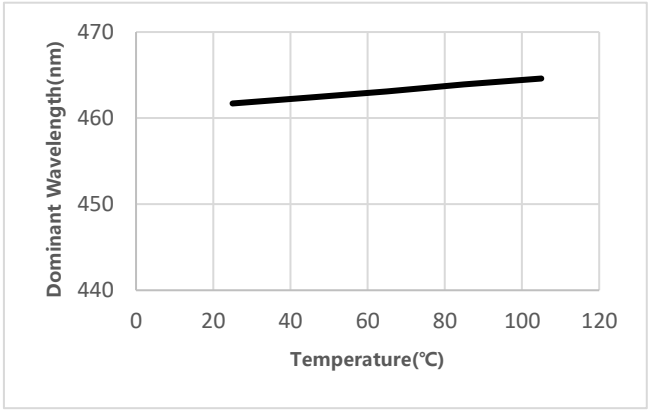


图 4 温度与波长曲线@5mA
Temperature Vs. Dominant Wavelength@5mA

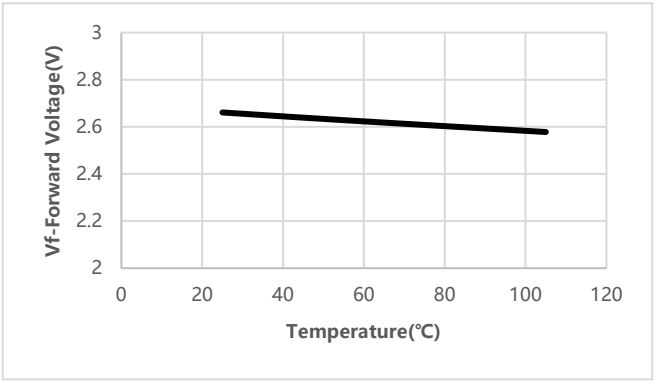


图 5 温度与正向电压曲线@5mA
Temperature Vs. Forward Voltage@5mA

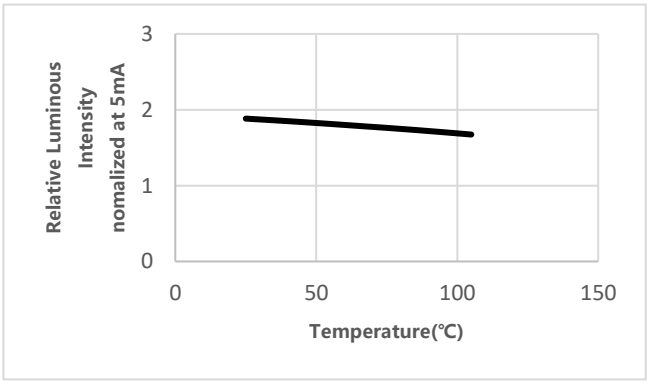


图 6 温度与相对亮度曲线@5mA
Temperature Vs. Relative Luminous Intensity@5mA