

产品规格书

SPECIFICATION FOR APPROVAL

CUSTOMER 客户名称		MODEL NO. 产品型号	GT-PST120X3-2.0-2728
SAMPLE DATE 送样日期		DESCRIPTION 产品描述	120W 冷白光COB光源

CUSTOMER AUTHORIZED SIGNATURE 客户承认签核		

Please return to us one copy of "SPECIFICATION FOR APPROVAL"

With your approved Signature.

客户签字确认、盖章后请回传一份承认书我司。

ENGINEERING DEPARTMENT 工程部		
APPROVED 核准	CHECKED 审核	PREPARED 制定



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Description

产品描述

Features.特性:

- ◆ High Luminance and High Luminous density
高亮度 高流明密度
- ◆ No gold wire encapsulation, High reliability
无金线封装, 高可靠性
- ◆ Low thermal resistance: 0.86°C/W
热阻低: 0.86°C/W
- ◆ Unencapsulated die with low profile protective window optimizes optical coupling in entendue-limited applications
芯片上方有玻璃保护设计, 防尘并为高聚光应用连接提供便利。
- ◆ Light source input plug design, No welding.
光源输入端接插设计, 免焊接
- ◆ RoHS compliant
通过RoHS认证

Applications.应用:

- ◆ Entertainment Lighting
娱乐照明
- ◆ Architectural lighting
建筑照明
- ◆ Decorative lighting
装饰照明
- ◆ Medical lighting 医疗照明
- ◆ Stage Light, Projector Light, Follow Spot, Beam Light.
舞台灯、投光灯、追光灯、光束灯
- ◆ Fiber-coupled Illumination
光纤连接照明

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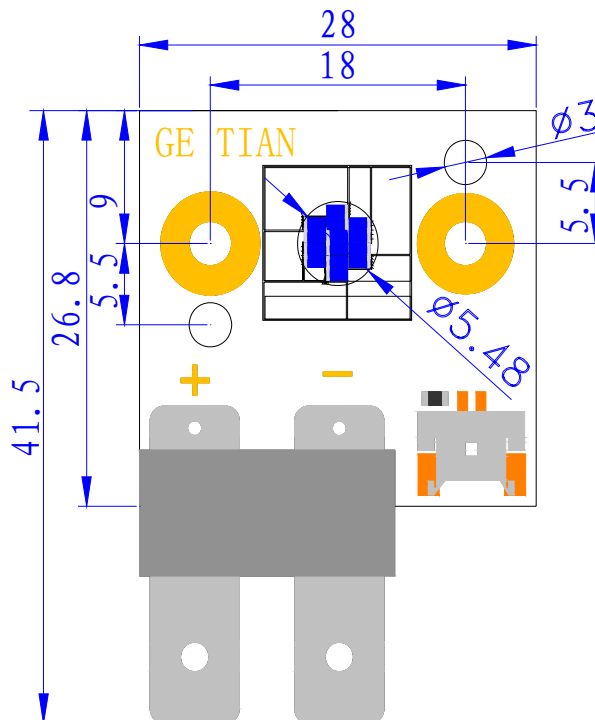
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Model No. of GT-Power LED Series 格天大功率LED系列产品型号说明

Product Model No. 产品型号	GT	P	ST	120	XX	X	X
	1	2	3	4	5	6	7
	GT	P	ST	120	X3	2.0	2728

Part Number 产品型号说明

- 1- GT: GeTian 格天光电
- 2- P : High Power LED 大功率LED
- 3- ST: Stage light 舞台灯
- 4- 120: 最大功率120W
- 5- XX: 色温
X3:8000K~8500K
- 6- X : 版本
2.0:产品版本为2.0
- 7- X: 铜基板尺寸
2728: 26.8*28mm

Outline Dimensions 尺寸说明
Dome Type 支架尺寸规格

Notes 注释:

- 1. All dimensions are in millimeters.(tolerance:±0.2) 所有的尺寸都以毫米为单位(公差: ±0.2);
- 2. Dimension Scale:1:1 尺寸比例为: 1: 1。
- *The appearance and specifications of the product may be changed for improvement without notice.
产品外形和说明书如有更新, 恕不另行通知!

Parameters
参数
Electrical-Optical Characteristics at Ta=25°C, Test current IF=5000mA
光电特性 Ta=25°C 测试电流IF=5000mA

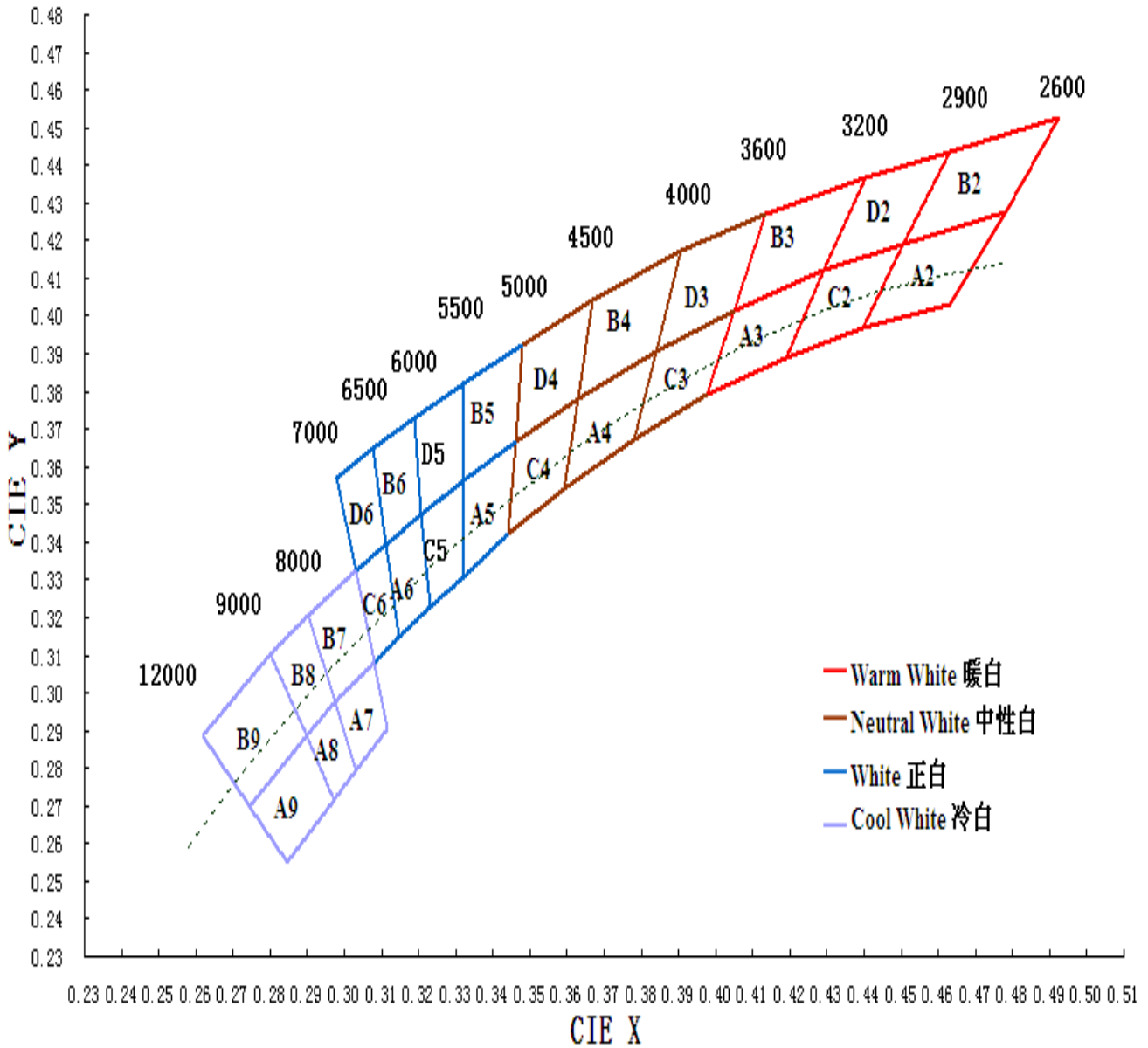
Parameter 参数	Symbol 符号	Min 最小值	Typ 典型值	Max 最大值	Unit 单位
Luminous Flux 光通量	ϕ_v	9000	~	10000	lm
Correlated Color Temperature./Wavelength 相关色温 / 波长	CCT / λ_D	8000	~	8500	K / nm
CRI 显色指数	Ra	~	75	~	~
Forward Voltage 正向电压	V _F	20	~	24	V
Power Dissipation 耗散功率	P _D	~	120	~	W
View Angle 发光角度	2 θ 1/2	~	120	~	deg.
Thermal Resistance 热阻	R θ J-B	~	0.86	~	°C/W

Absolute Maximum Ratings
极限参数

Parameter 参数	Symbol 符号	Value 数值	Unit 单位
Forward Current 正向电流	I _F	5000	mA
Junction Temperature 结点温度	T _j	150	°C
Operating Temperature 工作温度	T _{opr}	-40~+60	°C
Storage Temperature 储存温度	T _{stg}	0~+60	°C
ESD Sensitivity 静电击穿电压	~	±2,000V HBM	~
Reverse Voltage 反向电压	V _R	Not designed for reverse operation 禁止反向驱动	

***Notes 注释:**

1. Tolerance of Luminous Flux is ±3%.光通量的公差为±3%。
2. Tolerance of Forward Voltage is ±0.1V.正向电压的公差为±0.1V。

White Bining Information
白光分BIN图
模组白光色区图


*Notes 注释:

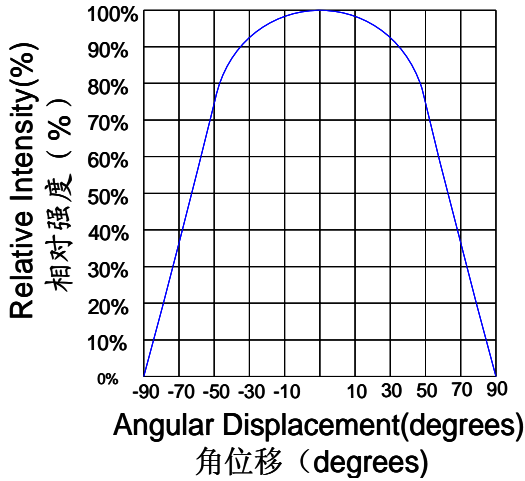
The black line represents the blackbody locus on CIE 1931 graph.
 黑色的线条代表CIE 1931图表的黑体轨迹。

Typical Characteristic Curves

典型特性曲线

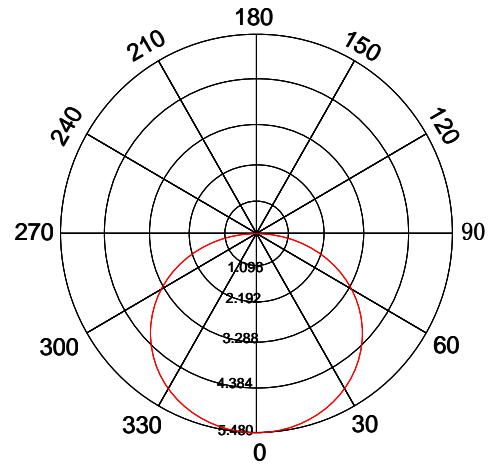
1. Typical Light Distribution Curve

典型的光强分布曲线



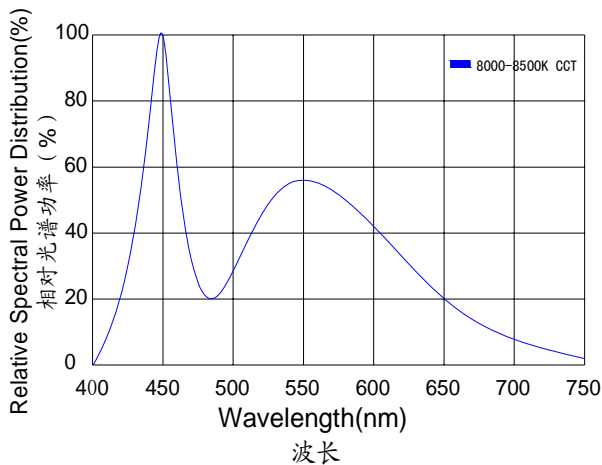
2. Typical Light-Emitting Angle Radiation Pattern

典型发光角度辐射图



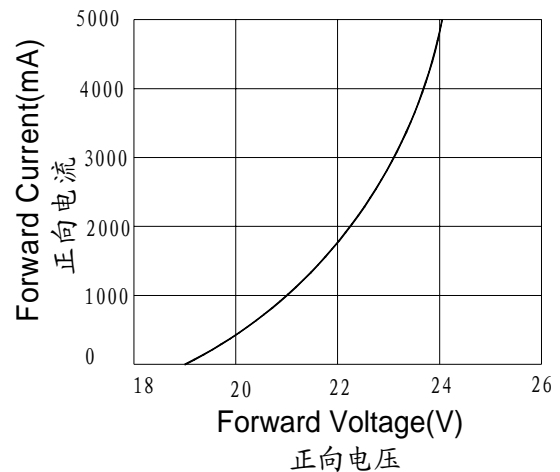
3. Typical white spectral distribution

典型白光光谱分布



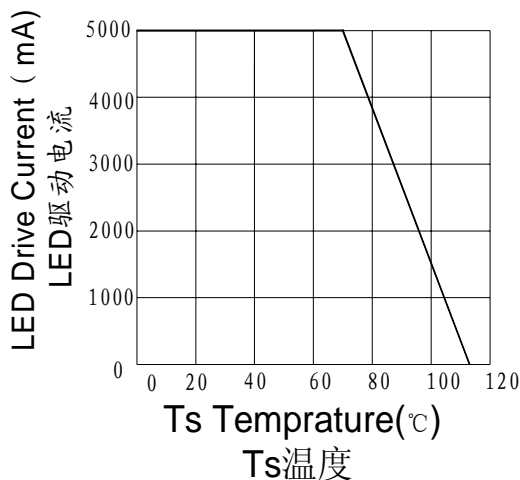
4. Forward Current vs. Forward Voltage

伏安特性曲线图



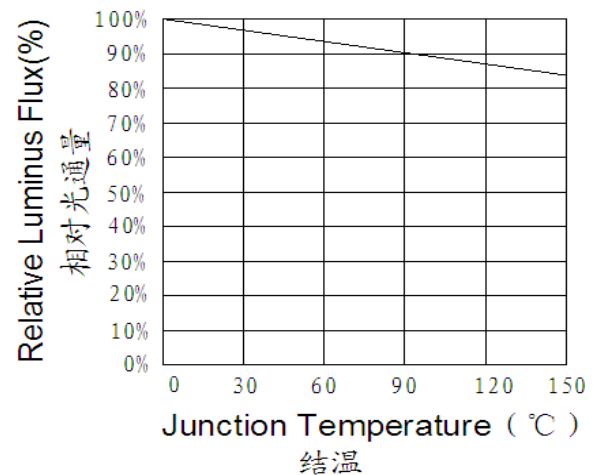
5. Current Derating Curve

电流降额曲线



6. Relative Luminous Flux vs. Junction Temperature

相对光通量与结温曲线图



Reliability Test Items And Conditions
可靠性试验

Test Items 测试项目	Test Condition 测试条件	Test Hours Cycles 测试时间与周期	Sample Size 样品数	Ac/Re
DC Aging 直流老化	Ta=25°C IF=5000mA	1000H	22	0/1
Hot and cold shock 冷热冲击	-40°C/30min +100°C/30min	100Cycles 100次循环	22	0/1
High Temperature Storage 高温储存	Ta=100°C	1000H	22	0/1
High Temperature High Humidity 高温高湿	85°C/85%RH	1000H	22	0/1
Low Temperature Storage 低温储存	Ta=-40°C	1000H	22	0/1
ESD(HBM) 抗静电	2000V HBM	1Time 1次	10	0/1

Criteria for Judging the Damage
失效判断标准

Items 项目	Symbol 符号	Test Condition 测试条件	Criteria For Judging Damage 判定标准
Forward Voltage 正向电压	V _F	I _F =5000mA	Initial Data±10% 初始值±10%
Reverse Current 反向电流	I _R	V _R =35V	I _R ≤10μA
Luminous Flux 光通量	φ _v	I _F =5000mA	Average φ _v degradation≤30% Single LED φ _v degradation≤50% 平均 φ _v 衰减≤30%，单个 φ _v 衰减≤50%