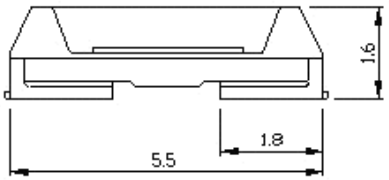
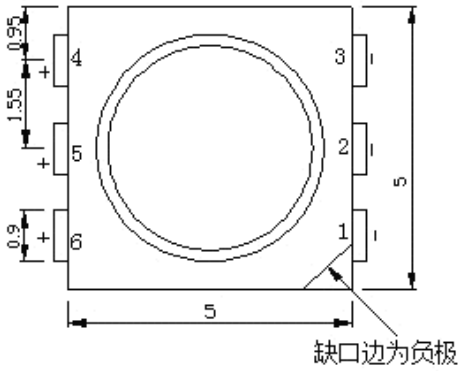
产品型号：**LTST-E500TBKT** 发光颜色：**Blue (兰色)**

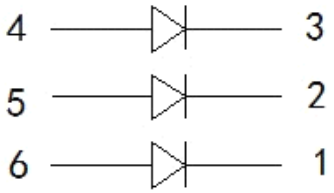
1、Features (特征)

(1). 5.0*5.0mm Dimensions SMD
(5.0*5.0mm 贴片式)
(2).LOW CURRENT REQUIREMENT
(低电流驱动)
(3).LOW POWER CONSUMPTION
(低功率消耗)
(4).VERSATILE MOUNTING ON P.C. BOARD PANEL
(易安装)
(5).LONG LIFE-SOLID STATE RELIABILITY
(寿命长)

2、product Dimensions(产品尺寸)







Notes:

(1).All dimensions are in millimeters.
(单位：毫米)
(2).Tolerance is ±0.10 unless otherwise noted.
(尺寸公差：±0. 10,另有标注除外.)
(3).Specifications are subject to change without notice.
(规格若有变动, 恕不另行通知.)

3、CENTRAL INFORMATION (主要资料)

Part No. (产品型号)	Chip Material (晶片材质)	Emitting Color (发光颜色)	Lens Type (胶体颜色)	Iv(mcd)@20mA (发光强度)			Viewing Angle (发光角度)
				Min. (最小值)	Typ. (规格值)	Max. (最大值	2θ1/2 (角度)
LTST-E500TBKT	GaN	Blue (兰色)	Limpidity (透明)	800	900	1040	125°

Note:

(1). θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value. (θ 1/2 是指当亮度减到一半时与发光特性曲线相交所对应的角度值.)

4、Electrical / Optical Characteristics at T_A=25° C(25° C 环境下之电性/光学特性)

Parameter(参数)	Symbol (符号)	Min (最小值)	Typ. (规格值)	Max. .(最大值)	Units (单位)	TestConditions (测试条件)
Forward Voltage(正向电压)	V_F	2.8	3.1	3.6	V	I_F=20mA
Chromatictily wavelength (波长)	Wld	465	467.5	470	-	I_F=20mA
Spectral Line Half-width (带宽)	Δ λ	-	29	-	nm	I_F=20mA
Reverse Current (反向电流)	I_R	-	-	5	uA	V_R=5V

5、Absolute Maximum Ratings at T_A=25° C(在 25° C 环境下之最大绝对额定值)

Parameter(参数)	Symbo(符号)	Maximum Rating(最大值)	Units(单位)
Power dissipation(功率消耗)	Pd	39	mW
Forward Current(正向电流)	I_F	20	mA
Peak Forward Current (1)(正向电流峰值)	I_F(Peak)	130	mA
Reverse Voltage(反向电压)	V_R	5	V
Operating Temperature(操作温度)	Topr	-40° C To +80° C	
Storage Temperature(贮藏温度)	Tstg	-40° C To +80° C	
Lead Solder Temperature(2)(焊接温度)	Tsol	240° C for 3 seconds	

Note:

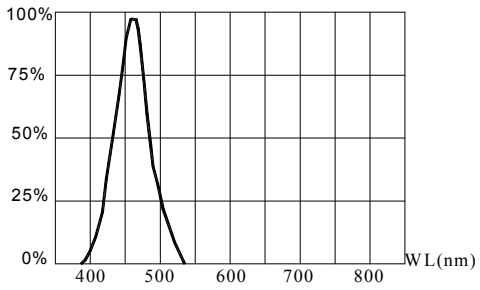
(1).1/10 Duty Cycle, 0.1ms Pulse Width.

(1/10 周期, 0.1ms 脉宽)

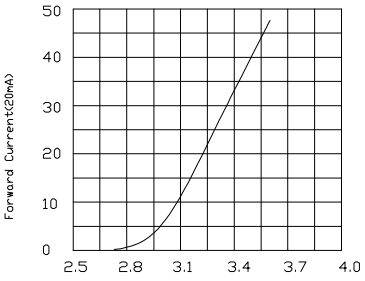
(2).The production accord with the demand of ROHS.

(此产品符合 ROHS 要求.)

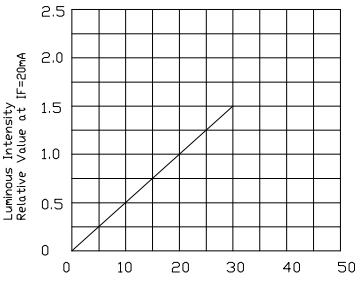
6、Graphs



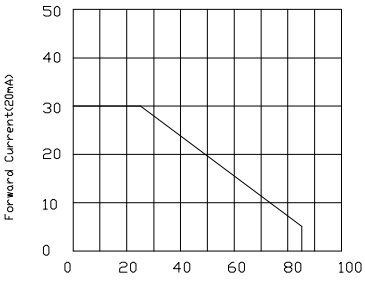
RELATIVE INTENSITY Vs. WAVELENGTH
相对亮度与波长曲线图



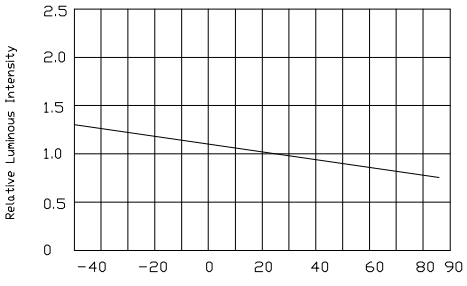
FORWARD CURRENT Vs FORWARD VOLTAGE
正向电流与正向电压关系曲线图



LUMINOUS INTENSITY Vs FORWARD CURRENT
亮度与正向电流关系曲线图

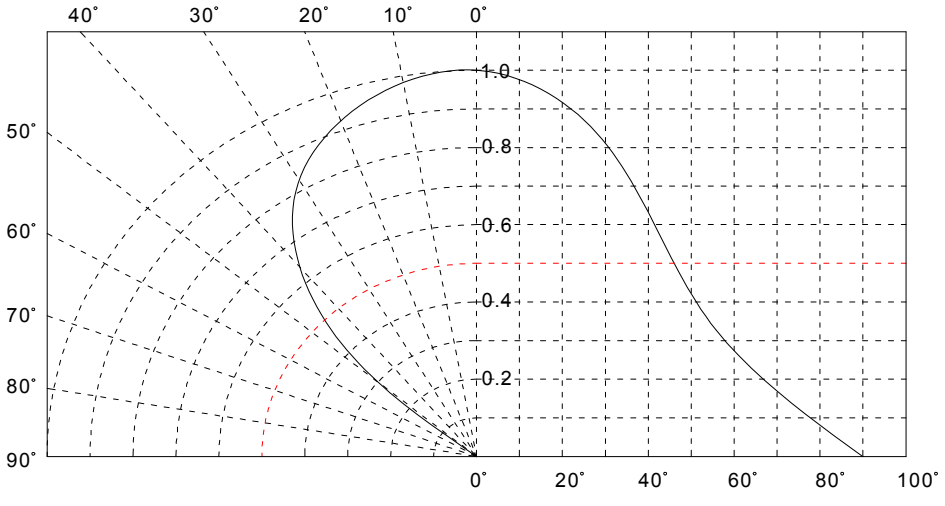


FORWARD CURRENT DERATING CURVE
正向电流递减曲线图



LUMINOUS INTENSITY Vs AMBIENT TEMPERATURE
亮度与环境温度关系曲线图

Diagram characteristics of radiation



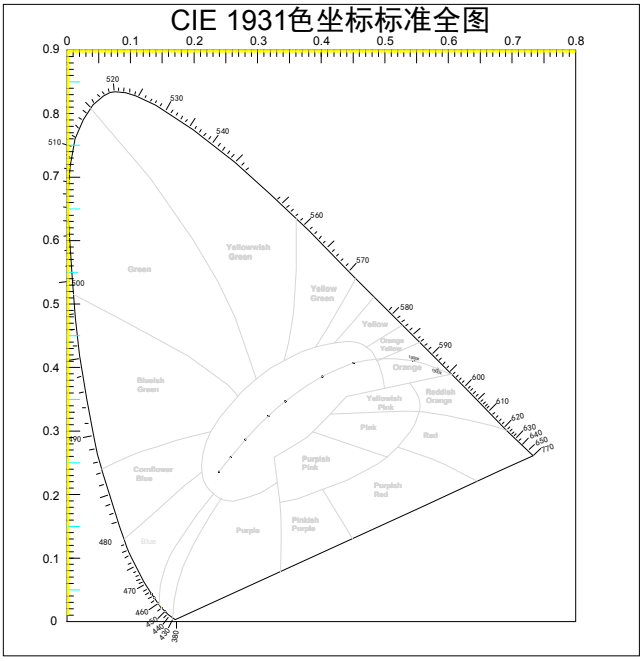
7、Intensity、Color And Forward Voltage Bin Limits(亮度、颜色及正向电压等级)

(1) Intensity Bin Limits (I_F=20mA)

SELECTION CODE FOR SUPER BRIGHT LEDS		
Group	Light intensity in mcd(20mA) Super Bright white	
	Min.	Max.
T2	800	1040
U1	1040	1350

Tolerance for each Bin limit is ±15%.

(2) CIE Specifications (Tolerance is ±0.01@IF=20mA) 色品图



(3) Forward Voltage Bin limits(I_F=20mA)

Grade (等级)	V7	V8	V9	V10
Range (范围)	2.8-3.0	3.0-3.2	3.2-3.4	3.4-3.6

Tolerance for each Bin limit is ±0.1v.

8、Reliability Test Items and Conditions 可靠性测试项目及测试条件

No.	Test Item 测试项目	Test Conditions 测试条件	Note 频次	Number of Damaged 允许破坏数
01	Resistance to Soldering Heat(Reflow Soldering) 回流焊可承受条件测试	Tsld=260℃,10sec	2 times	0/22
02	Temperature Cycle 温度循环测试	-35℃ 30min ↑↓5min 85℃ 30min	100 cycle	0/100
03	Thermal Shock 冷热冲击测试	-35℃ 15min ↑↓ 85℃ 15min	100 cycle	0/100
04	High Temperature Storage 高温贮藏测试	T_a=80℃	1000 hrs	0/100
05	Temperature Humidity Storage 恒温恒湿贮藏测试	T_a=85℃ RH=90%	1000 hrs	0/100
06	Low Temperature Storage 低温贮藏测试	T_a=-35℃	1000 hrs	0/100
07	Power On/off Cycle Test IF=20mA 亮暗测试	On 2 hours ↑↓ Off 10min	100 cycle	0/100
08	Life Test 常温寿命测试	T_a=25℃ I_F=20mA	1000 hrs	0/100
09	High Humidity Heat Life Test 恒温恒湿寿命测试	60℃ RH=90% I_F=20mA	500 hrs	0/100
10	Low Temperature Life Test 低温寿命测试	T_a=-35℃ I_F=20mA	1000 hrs	0/100
11	Drop 跌落测试	75cm	3 times	0/10

9、 Criteria for Judging the Damage 破坏判定标准

Item	Symbol	Test Conditions	Criteria for Judgement	
			Min.	Max.
Forward Voltage 正向电压	VF	IF=20mA	_	U.S.L*)×1.1
Reverse Current 反向电流	IR	VR=5V	_	U.S.L*)×2.0
Luminous Intensity 发光强度	IV	IF=20mA.	L.S.L**)×0.7	_