RoHS

Specification

规 格 书

Customer Name：

客户名称：_____

Customer P/N：

客户品号：_____

Factory P/N：

公司品号：GT-3528U41FC-T30-2

Sending Date：

送样日期：_____

Client approval 客户审核			Goozo approval 鸿利国泽审核		
Approval 核准	**Audit 确认**	**Confirmation 制作**	**Approval 核准**	**Audit 确认**	**Confirmation 制作**
			潘桂建	钟亚程	夏昊
□ **Qualified 接受**		□ **Disqualified 不接受**	**DATE: 日期：**		

Address：Dangui Road NO. 1 Dantu Area Zhenjiang City Jiangsu Province

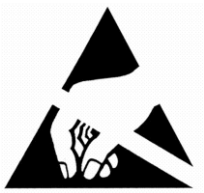
地址：江苏省镇江市丹徒区丹桂路 1 号

Tel/电话：020-37705135 Fax/传真：020-37705136 Web/网址：www.goozo.com.

cn注:

1.此规格书以中英文方式书写,若有冲突以中文版本为准文本.

2.此规格书的最终解释权归属江苏鸿利国泽光电科技有限公司



ATTENTION 注意

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

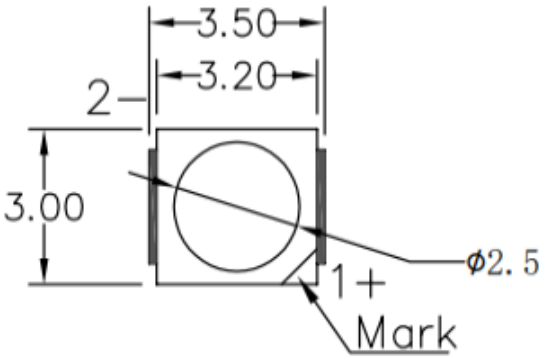
Features

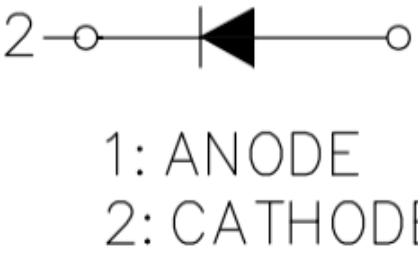
Compatible with automatic placement equipment
Compatible with reflow solder process
Low power sonsumotion and wide viewing angle
This product doesn't contain restriction.Substance,comply ROHS standard

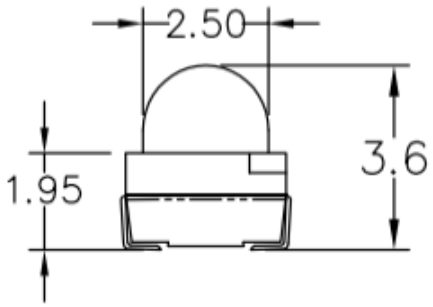
Applications

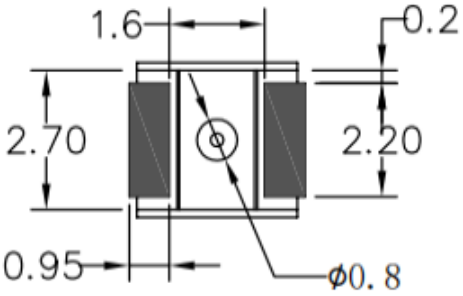
Automotive and Telecommunication
General use for indicators
Indoor display

Package Dimensions



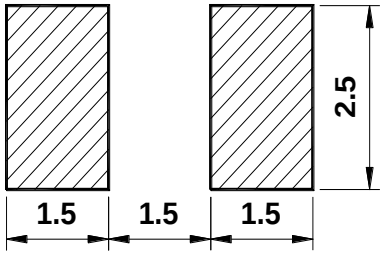






■Recommended Soldering Patter

<Units:mm>



Tolerance Grade/公差等级	Dimension Tolerance/尺寸 (Unit:mm)			
	0.5~3	3~6	6~30	30~120
	±0.1	±0.2	±0.3	±0.5
Chip/晶片			Lens Color/胶体颜色	
Material/材质	Emitting Color/ 发光颜色		Water Clear/无色透明	
AlGaInP	Red/红色			

■Absolute Maximum Rating

Item 项目	Symbol 符号	Value 数值	Unit 单位
Forward Current 正向电流	IF	20	mA
Peak Forward Current* 峰值正向电流	IFP	30	mA
Reverse Voltage 反向电压	VR	5	V
Power Dissipation 功耗	PD	45	mW
Electrostatic discharge 抗静电能力	ESD	2000	V
Operation Temperature 操作温度	Topr	-40∽+85	℃
Storage Temperature 储存温度	Tstg	-40∽+100	℃
Lead Soldering Temperature*引脚焊接温度	Tsol	Max. 260℃ for 5sec Max.	

*IFP Conditions：Pulse Width≤10msec /IFP 正向峰值电流使用条件：脉冲宽度≤10 毫秒

■ Typical Optical/ Electrical Characteristics Ta=25℃

Item/项目	Symbol/ 符号	Condition/ 条件	Rank/ 档次	Min. 最小值	Typ. 典型值	Max. 最大值	Unit 单位
Luminous Intensity/光强	IV	IF=20mA		3700	--	6300	mcd
Forward Voltage/正向电压	VF			1.8	--	2.4	V
DominantWavelength/主波长	λd			620	--	630	nm
Viewing Angle/角度	2θ 1/2			--	30	--	deg
RecommendForwardCurrent/ 推荐使用正向电流	IF(rec)	--		--	--	20	mA
Reverse Current/反向电流	IR	Vr=5V		--	--	10	uA

Notes/注释:

Tolerance ： VF±0.1V，λd±2 nm，IV(φ) ±15%，2θ 1/2±15%，X/Y±0.005.

公差：正向电压±0.1V，主波长±2 nm，光强（光通量）±15%，角度±15%，X/Y±0.005.

■ Ranks

Forward Voltage(IF=20mA)

	Min	Max	Unit
BIN1	1.8	2.0	V
BIN2	2.0	2.2	V
BIN3	2.2	2.4	V

Luminous Intensity(IF=20mA)

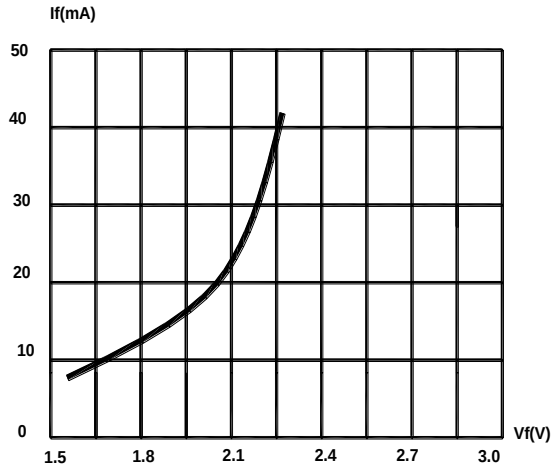
	Min	Max	Unit
BIN1	3700	4900	mcd
BIN2	4900	6300	mcd

Dominant Wavelength(IF=20mA)

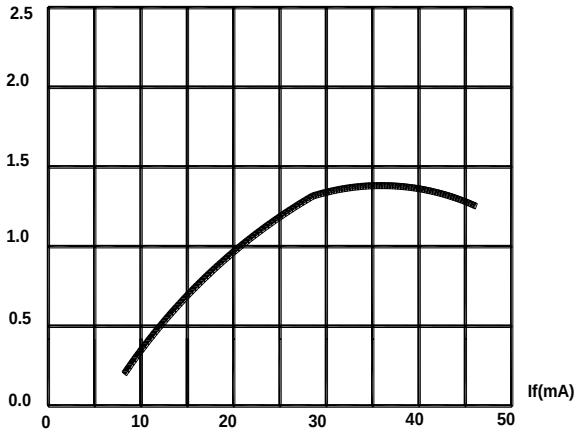
	Min	Max	Unit
BIN1	620	625	nm
BIN2	625	630	nm

■ Typical Electrical/ Optical Characteristics Curves

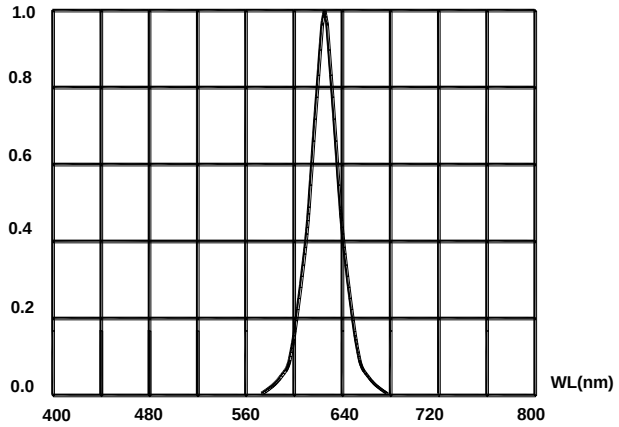
Ta=25℃



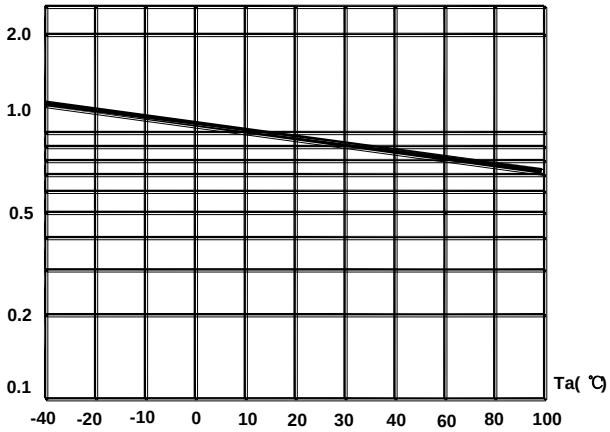
Forward Current vs. Forward Voltage



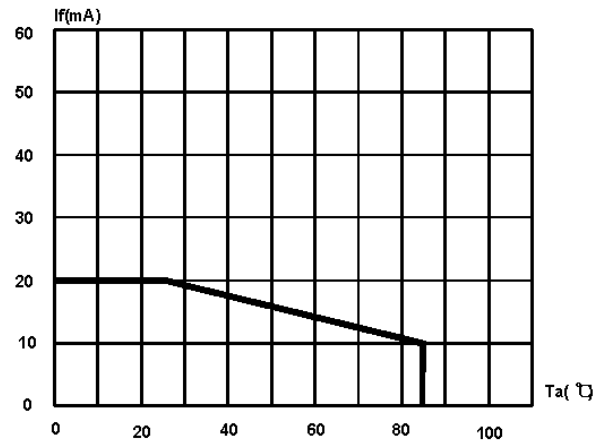
Relative Luminous Intensity vs. Forward Current



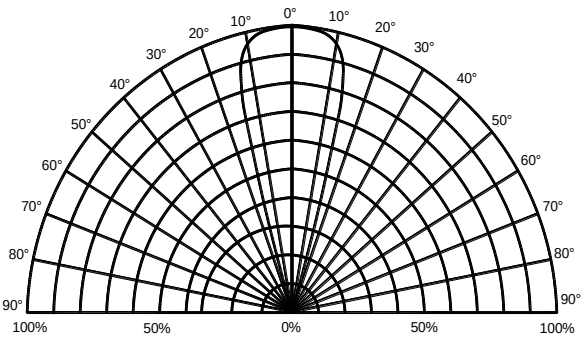
Relative Luminous Intensity vs. Wavelength



Relative Luminous Intensity vs. Ambient Temperature



Maximum Forward Current vs.Ambient Temperature



Relative Luminous Intensity vs.Radiation Angle

■ Reliability Performance 可靠性

Test Items And Result 测试项目和判定

Test Classification 测试类别	Test Item 测试项目	Test Conditions 测试条件	Test Duration 测试持续时间	Sample Size 样品数量	AC/RE 接受/拒收
Life Test 寿命测试	Room Temperature DC Operating Life Test 室温直流寿命测试	Ta=25℃±5℃, I_F=20mA	1000 hrs	22 pcs	0/1
Environment Test 环境模拟实验	Thermal Shock Test 冷热冲击	100℃±5℃ 5min ↑↓ -40℃±5℃ 5min.	100 cycles	22 pcs	0/1
	Temperature Cycle Test 高低温循环实验	100℃±5℃ 30min ↑↓5min -40℃±5℃ 30min.	100 cycles	22 pcs	0/1
	High Temperature & High Humidity Test 高温高湿实验	60℃±5℃/90% RH IF=20mA	1000 hrs	22 pcs	0/1
	High TemperatureStorage 高温储存	Ta=100℃±5℃	1000 hrs	22 pcs	0/1
	Low TemperatureStorage 低温储存	Ta=-40℃±5℃	1000 hrs	22 pcs	0/1
Mechanica Test 机械测试	Resistance to Soldering Heat 耐焊接实验	Temp=260℃max T=5sec max	1times	22 pcs	0/1

■Failure criteria

Item	Symbol	Test Conditions	Criterial for judgment	
			Min	Max
Forward Voltage	VF	IF=20mA	-	U.S.L*1.2
Reverse Current	IR	VR=5V	-	U.S.L*2.0
Luminous Intensity	IV	IF=20mA	L.S.L*0.7	-

If the led is not dead and meets the above requirements, it is deemed qualified.

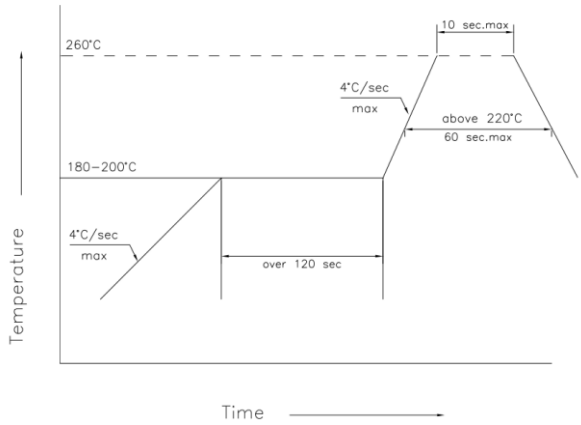
PS: U.S.L:Upper Standard Level L.S.L:Lower Standard Level

SMT Reflow Soldering Instructions SMT 回流焊说明

1.Reflow soldering should not be done more than two times. 回流焊不可以做两次以上

2.When soldering , do not put stress on the LEDs during heating

当焊接时，不要在材料受热时用力压胶体表面



Soldering iron 烙铁焊接

1.When hand soldering, keep the temperature of iron below less 300℃less than 3 seconds

当手工焊接时，烙铁的温度必须小于 300℃，时间不可超过 3 秒

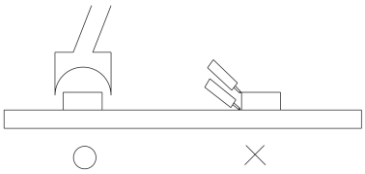
2.The hand solder should be done only one times

手工焊接只可焊接一次

Repairing 修补

Repair should not be done after the LEDs have been soldered.When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed in advance whether the characteristics of LEDs will or will not be damaged by repairing.

LED 回流焊后不应该修复，当修复是不可避免时，必须使用双头烙铁（如下图），但必须事先确认此种方式会或不会损坏 LED 本身的特性。



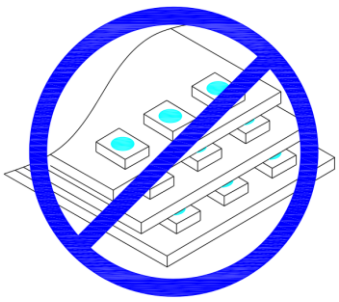
Cautions 注意事项

The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.

LED 封装为硅胶，故 LED 胶体表面较软，用力按压胶体表面会影响 LED 可靠性，因此应有预防措施避免在封装的零件上的强大压力，当使用吸嘴时，胶体表面的压力应是恰当的。

3. Do not stack together assembled PCBs containing LEDs. Impact may scratch the silicone lens or damage the internal circuitry

不可将模组材料堆积在一起，它可能会损坏内部电路



4. Not suitable to operate in acidic envi- ronment, PH<7

不可用在 PH<7 的酸性场所