

RoHS

Specification

规格书

Customer Name : _____

客户名称 :

Customer P/N : _____

客户品号 :

Factory P/N : **HL-A-3528H343W-S1-10-HR3**

公司品号 :

Sending Date : _____

送样日期 :

Client approval 客户审核			Hongli approval 鸿利光电审核		
Approval 核准	Audit 确认	Confirmation 制作	Approval 核准	Audit 确认	Confirmation 制作
			林德顺		黄雪梅
<input type="checkbox"/> Qualified 接受		<input type="checkbox"/> Disqualified 不接受		DATE: 日期:	

Adr : Airport High-tech Industry Base Jingu South Road(XianKe 1st Road Intersection),
Huadu District, Guangzhou, China

地址: 中国广州市花都区机场高科技产业基地金谷南路与先科一路交汇

Tel/电话 : 020-86733333

Fax/传真 : 020-86733883 86733938 86733265

Web/网址 : www.honglitronic.com

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.

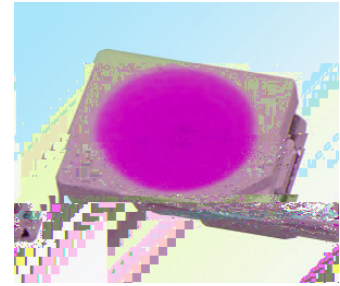
2. 此规格书的最终解释权归广州鸿利光电股份有限公司

3. 此规格书的有效期限为两年,自盖章或签字之日起计算,期满时双方可以续签协议,但应采用书面形式

HL-A-3528H343W-S1-10-HR3

Features(特征)

- PLCC-2 Package.(PLCC-2 封装)
- Extremely wide viewing angle. (宽的发光角度)
- Suitable for all SMT assembly and solder process. (适用于所有的SMT组装和焊接工艺)
- Available on tape and reel. (适用于载带及卷轴)
- Moisture sensitivity level: Level 4. (防潮等级 Level 4)
- Package:3000pcs/reel..(包装每卷3000PCS)
- RoHS compliant. (RoHS 认证)



Description (描述)

The White LED which was fabricated using a blue chip and the phosphor
白光LED由蓝光芯片与荧光粉激发而成



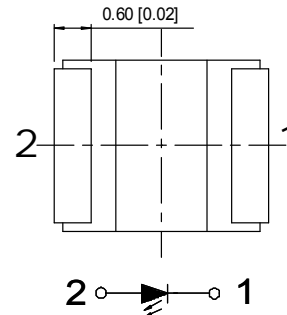
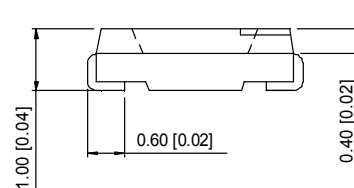
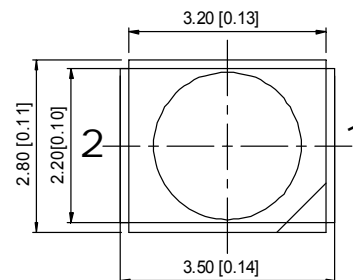
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

注意：操作时应注意静电敏感
释放设备装置

Applications (应用)

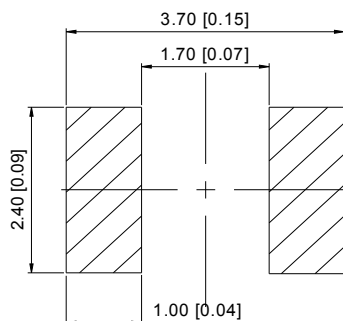
- Optical indicator (光学指示)
- Indoor display (室内显示)
- Automotive lighting (汽车照明)
- Backlight for LCD, switch and Symbol, display
(LCD背光、转换器, 开关和标志, 显示器等)
- Tubular light application (用于日光灯管)
- General use (一般应用)

Package Dimensions (封装尺寸)



Recommended Soldering Pattern

(建议焊盘尺寸图)



Notes: (备注)

1. All dimension units are millimeters. (所有标注尺寸单位为毫米)
2. All dimension tolerance is ± 0.15 mm unless otherwise noted. (除特别标注外, 所有尺寸允许公差 ± 0.15 mm)

Selection Guide (选择指南)

Part No. 型号	Chip Materials 芯片材料	Lens Type 胶体类型
HL-A-3528H343W-S1-10-HR3	InGaN	Yellow Diffused

Mass Production list (批量生产目录)

Part No. 型号	CCT (K)			Φ (lm)		
	Min	Typ	Max	Min	Typ	
HL-A-3528H343W-S1-10-HR3	5700	6000	6500	8.0	8.5	mA
	4750	5000	5300	8.0	8.5	mA
	3800	4000	4250	8.0	8.5	mA
	2800				8.3	mA

Parameter

 ...erif... the lumina... center...
 ...到光学...

...forward... tolerance...

...测量误...

...for coord... nce is...

...上...

HL-A-3528H343W-S1-10-HR3

Absolute Maximum Ratings at Ta=25°C 绝对最大额定值

Parameter (参数)	Symbol (符号)	Rating (值)	Units (单位)
Power Dissipation (功耗)	Pd	100	mW
Forward Current (正向电流)	IF	30	mA
Peak Forward Current [1] (峰值正向电流)	IFP	100	mA
Reverse Voltage (反向电压)	VR	5	V
Electrostatic Discharge (HBM) (静电)	ESD	1000	V
Operating Temperature (操作温度)	Topr	-40 ~ +85	°C
Storage Temperature (保存温度)	Tstg	-40 ~ +100	°C
Thermal Resistance (Junction / Soldering point) 热阻	Rthj-s	100	°C/W
Junction Temperature结温	Tj	115	°C

Note: (备注)

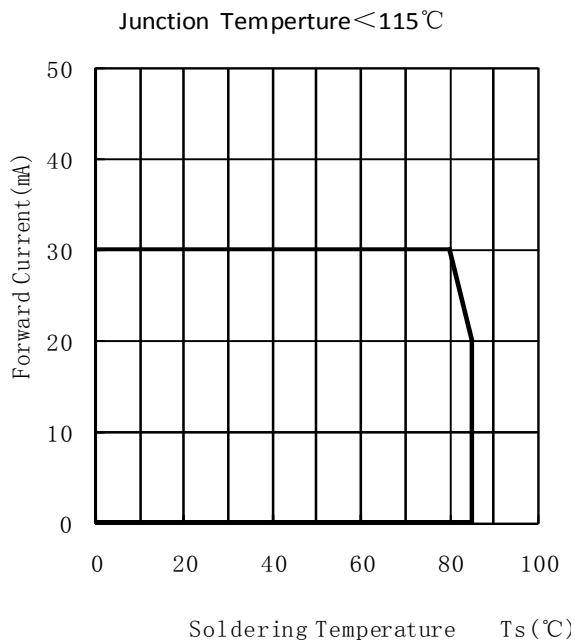
1. 1/10 Duty cycle, 0.1ms pulse width. (脉宽0.1ms, 周期1/10)

HL-A-3528H343W-S1-10-HR3

Typical optical characteristics curves 典型光学特性曲线

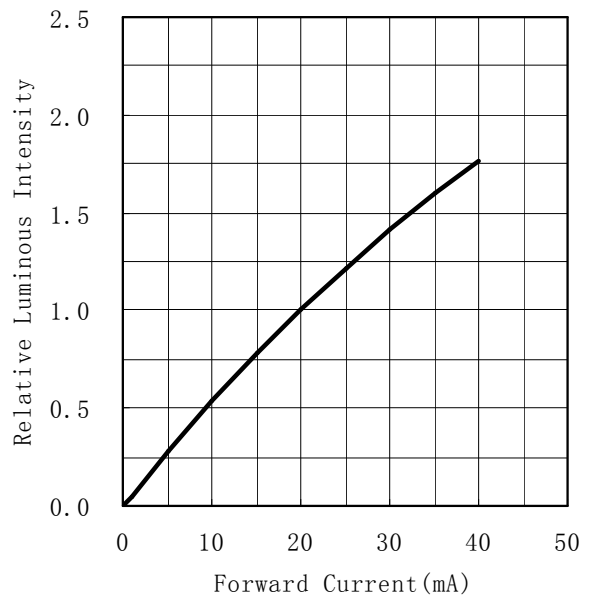
Soldering Temperature vs. Forward Current

焊盘温度与正向电流特性曲线



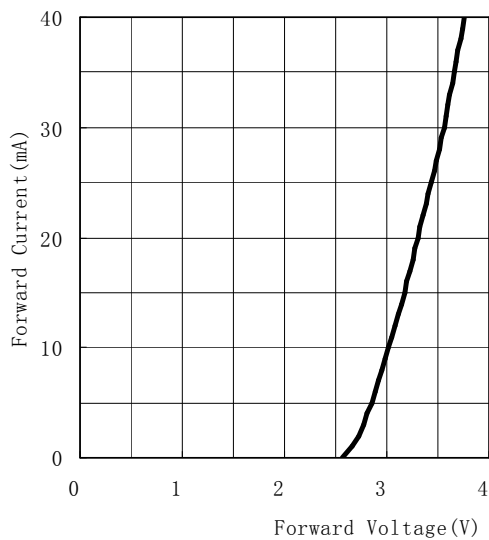
Forward Current VS. Relative Intensity

正向电流与相对光强特性曲线



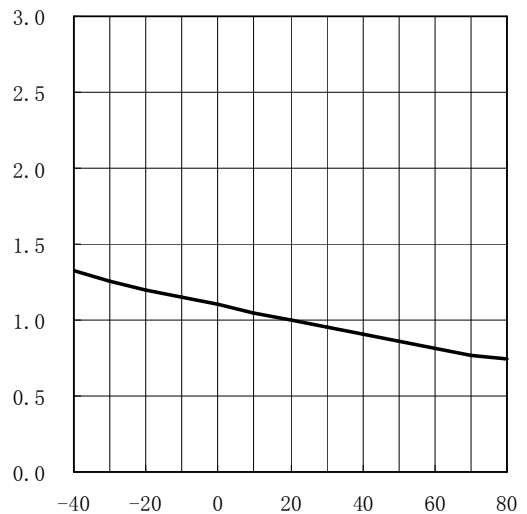
Forward Voltage VS. Forward Current

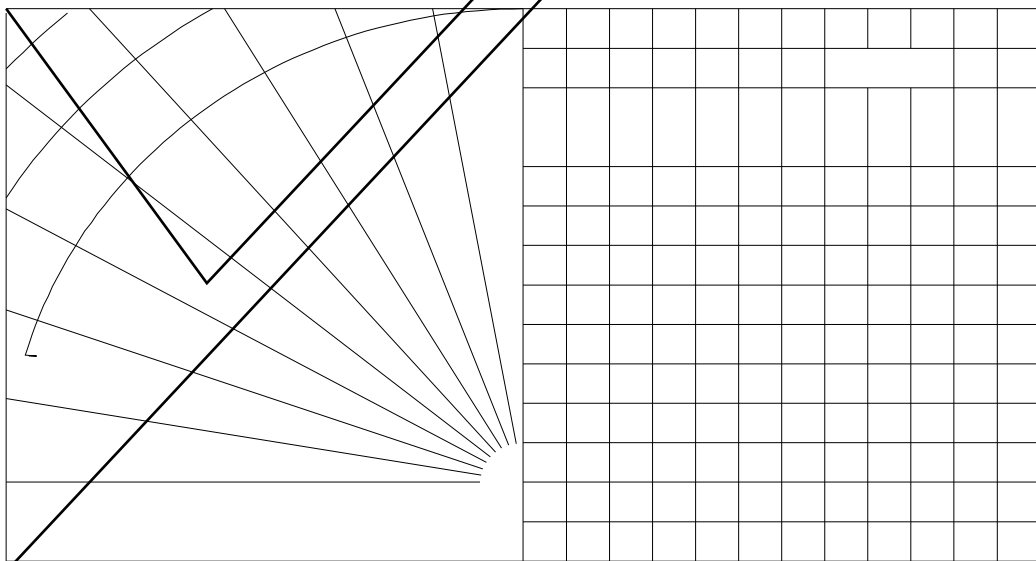
正向电压与正向电流特性曲线



Ambient Temperature VS. Relative Intensity

环境温度与相对光强特性曲线







Chromaticity Coordinate Bin 区分类及色坐标范围

ode Bin代码	CIE_x	CIE_y	Bin Code	Bin代码	CIE_x	CIE_y
	0.3205	0.3481			0.3211	0.3468
6000-6500K	0.3117	0.3393	C42	5700-6000K	0.3294	0.3542
	0.3131	0.329			0.3296	0.3429
	0.3213	0.3371			0.3219	0.3360
	0.3213	0.3371			0.3219	0.3360
000-6500K	0.3131	0.329	C43	5700-6000K	0.3296	0.3429
	0.3145	0.3187			0.3298	0.3315
	0.3221	0.3261			0.3227	0.3251
	0.3376	0.3616			0.3461	0.3685
5000-5300K	0.3461	0.3685	N12	4750-5000K	0.3545	0.3754
	0.3451	0.3561			0.3530	0.3625
	0.3372	0.3497			0.3451	0.3561
	0.3372	0.3497			0.3451	0.3561
5000-5300K	0.3451	0.3561	N13	4750-5000K	0.3530	0.3625
	0.3441	0.3437			0.3514	0.3496
	0.3368	0.3378			0.3441	0.3437
	0.3731	0.3853			0.3839	0.3920
4000-4250K	0.3839	0.3920	N52	3800-4000K	0.3947	0.3987
	0.3803	0.3777			0.3903	0.3839
	0.3703	0.3716			0.3803	0.3777

4.

M

HL-A-3528H343W-S1-10-HR3

Bin Range of Chromaticity Coordinate Bin区分类及色坐标范围

CCT 色温	Bin Code Bin代码	CIE_x	CIE_y	Bin Code Bin代码	CIE_x	CIE_y
3000K	W42 3000-3100K	0.4354	0.4142	W43 3000-3100K	0.4316	0.4059
		0.4430	0.4165		0.4390	0.4082
		0.4390	0.4082		0.4350	0.3998
		0.4316	0.4059		0.4279	0.3975
		0.4279	0.3975		0.4430	0.4165
		0.4350	0.3998		0.4505	0.4189
	W44 3000-3100K	0.4310	0.3915	W52 2900-3000K	0.4463	0.4106
		0.4241	0.3892		0.4390	0.4082
		0.4390	0.4082		0.4350	0.3998
		0.4463	0.4106		0.4420	0.4022
		0.4420	0.4022		0.4378	0.3939
		0.4350	0.3998		0.4310	0.3915
	W62 2800-2900K	0.4505	0.4189	W63 2800-2900K	0.4463	0.4106
		0.4581	0.4212		0.4536	0.4129
		0.4536	0.4129		0.4492	0.4045
		0.4463	0.4106		0.4420	0.4022
		0.4420	0.4022			
		0.4492	0.4045			
	W64 2800-2900K	0.4447	0.3962			
		0.4378	0.3939			

HL-A-3528H343W-S1-10-HR3

Reliability Test Items And Conditions 信赖性测试项目及条件

Test Items 项目	Ref. Standard 参考标准	Test Condition 测试条件	Time 时间	Quantity 数量	Ac/Re 接收/拒收
Reflow 回流焊	JESD22-B106	Temp:260°Cmax T=10 sec	3 times.	22Pcs.	0/1
Temperature Cycle 温度循环	JESD22-A104	100°C±5°C 30 min. ↑↓5 min -40°C±5°C 30 min.	100 Cycles	22Pcs.	0/1
High Temperature Storage 高温保存	JESD22-A103	Temp:100°C±5°C	1000Hrs.	22Pcs.	0/1
Low Temperature Storage 低温保存	JESD22-A119	Temp:-40°C±5°C	1000Hrs.	22Pcs.	0/1
Life Test 常温通电	JESD22-A108	Ta=25°C±5°C IF=20mA	1000Hrs.	22Pcs.	0/1
High Temperature High Humidity Life Test 高温高湿通电	JESD22-A101	85°C±5°C/ 85%RH IF=20mA	1000Hrs.	22Pcs.	0/1

Failure Criteria 失效判定标准

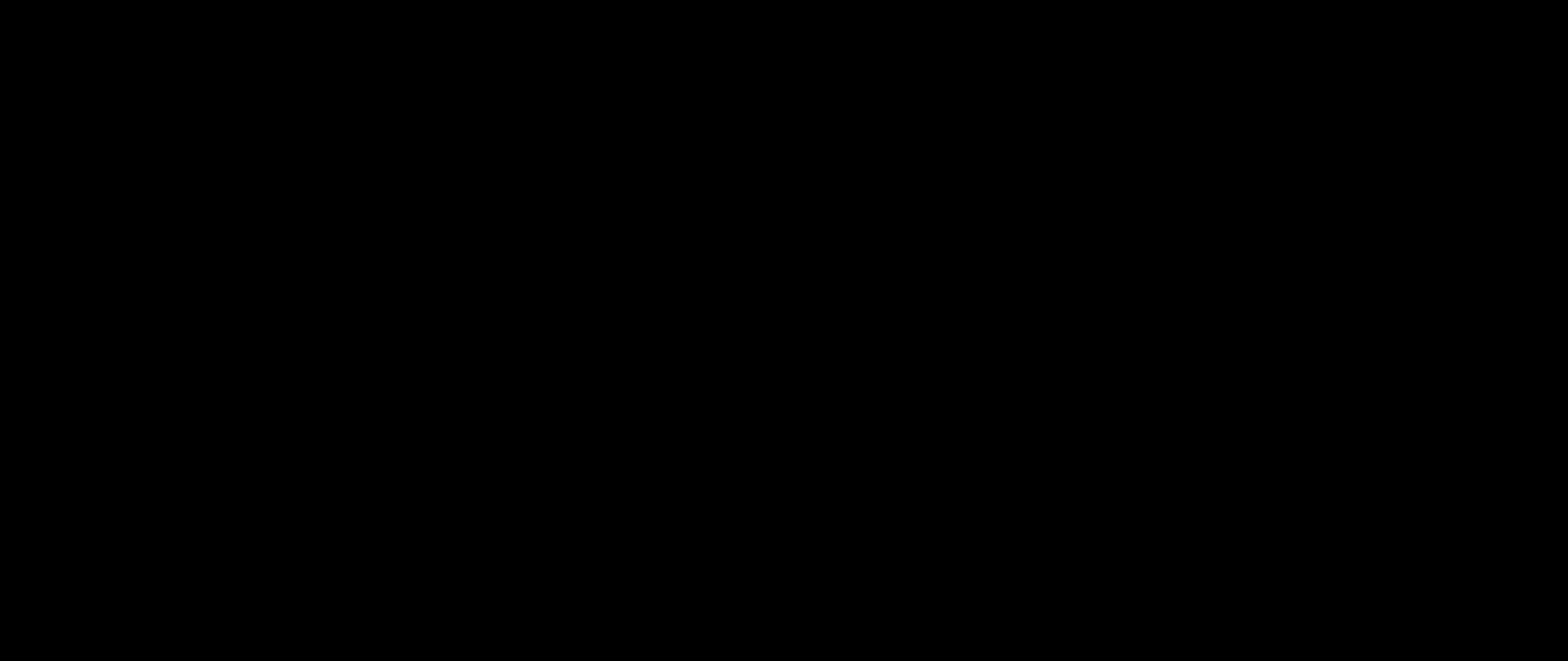
Test Items 项目	Symbol 符号	Test Condition 测试条件	Failure Criteria 判定标准	
			Min. 最小	Max. 最大
Forward Voltage 正向电压	VF	IF=20mA	--	U.S.L*)x1.1
Reverse Current 反向电流	IR	VR = 5V	--	10uA
Luminous Flux 光通量	Im	IF=20mA	L.S.L*)x0.7	--

U.S.L: Upper Specification Limit 规格上限

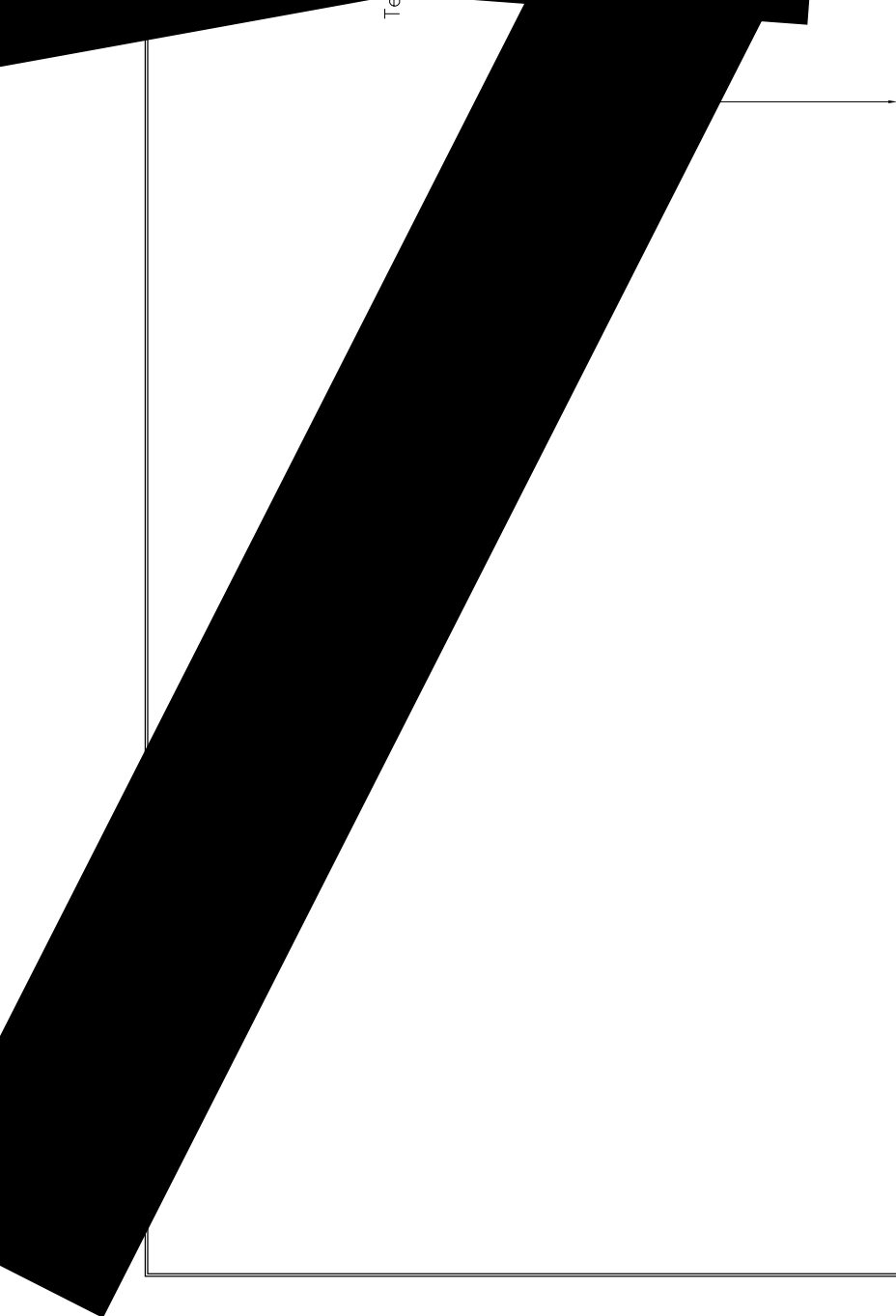
L.S.L: Lower Specification Limit 规格下限

*The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.

数据工作表中所示的技术信息仅限于典型特征和电路实例引用的产品。它既不构成工业特性的保证，也不构成任何许可的授权

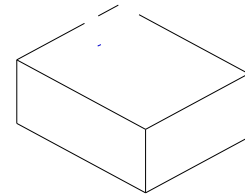
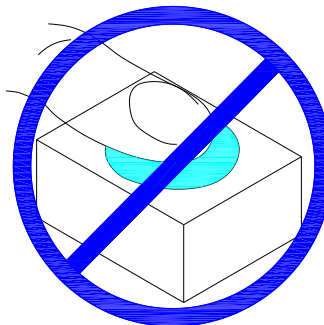
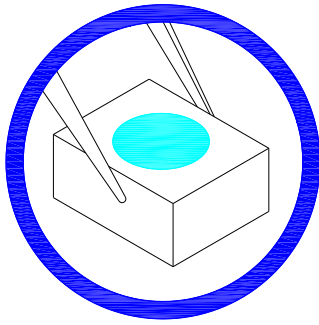


Te



1. Handle the component along the side surface by using forceps or appropriate tools; do not directly touch or Handle the silicone lens surface, it may damage the internal circuitry.

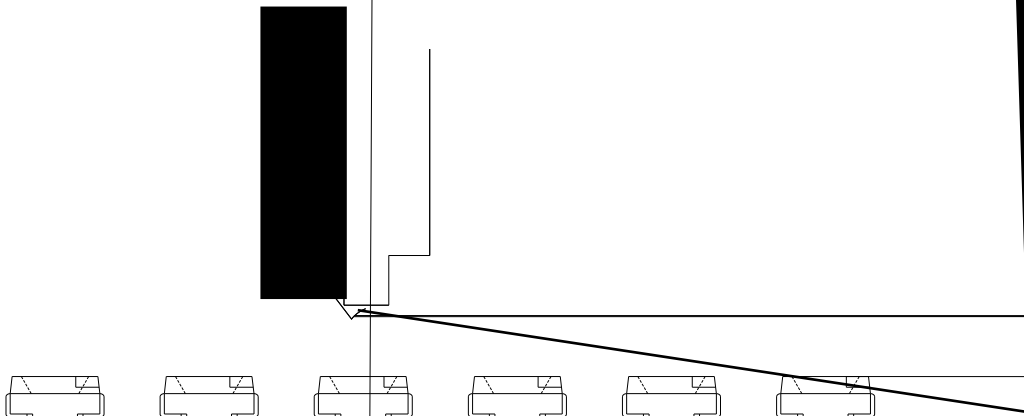
通过使用适当的工具从材料侧面夹取，不可直接用手或尖锐金属压胶体表面，它可能会损坏内部电路



LED工作环境及与LED适配的材料中硫元素及化合物成份不可超过100PPM

6. When we need to use external glue for LED application products, please make sure that the external glue matches the LED packaging glue. Additionally, as most of LED packaging glue is silica and it has strong Oxygen permeability as well as strong moisture permeability; in order to prevent external material from getting into the inside of LED, which may cause the malfunction of LED, the content of Bromine element is required to be less than 900PPM, the single content of Chlorine element is required to be less than 900PPM, the total content of Bromine element and Chlorine element in external glue of the application products is required to be less than 1500PPM

当我们需要使用外封胶涂抹LED产品时，应确保外封胶与LED封装胶水相匹配，因为大多数LED的封装胶水为硅胶，强的氧化性和较强的吸湿性，必须防止外封材质进入LED内部以造成LED的损伤，单一的溴元素含量要求小于900PPM，一氯元素含量要求小于900PPM，在涂抹LED产品时要求外封胶溴元素与氯元素总含量必须小于1500PPM



7. Other points for attention, please refer to our LED user manual.
其它注意事项请参照我们的LED使用手册

HL-A-3528H343W-S1-10-HR3

Label 标签

IV: Luminous intensity rank 亮度等级
 VF: Forward voltage rank 电压等级
 X/Y: Coordinate rank 色坐标
 TC: Color temperature 色温



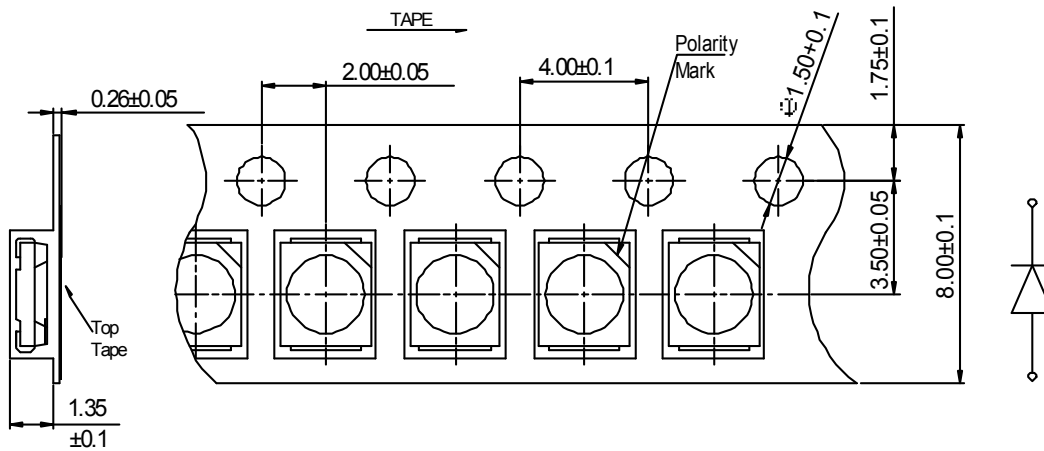
HONGLITRONIC
鸿利光电

RoHS

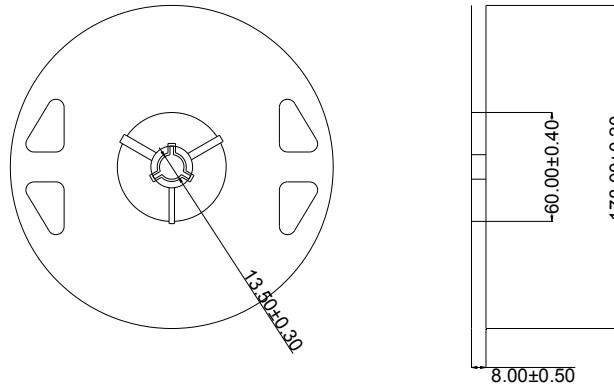
Part No: XXXXXXXXXXXXXXXXXXXXX
 IV: VF: X/Y:
 Quantity: TC:
 Sealing date: XXXXXXXXXXXXXXXXXXXXX



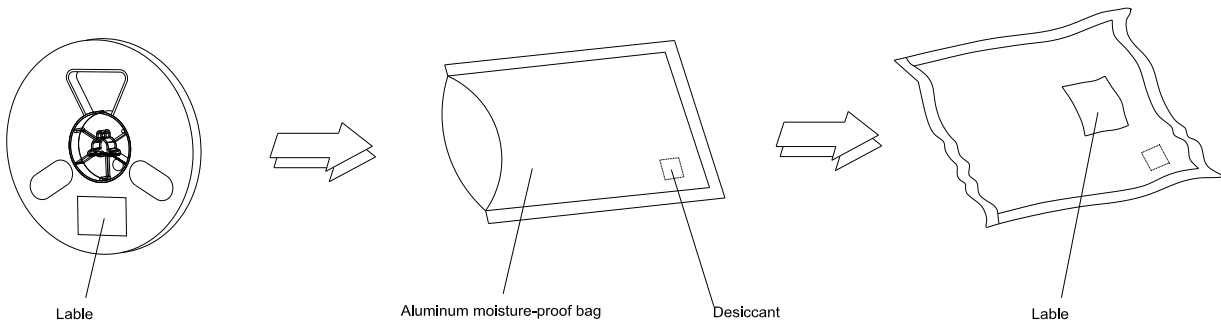
Tape Specifications (Units : mm) 载带规格 (单位: mm)



Reel Dimensions 卷轴尺寸



Moisture Resistant Packaging 防潮带包装



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit: mm 注: 标注公差为 $\pm 0.1\text{mm}$, 单位: mm