

确 认 书

APPROVAL SHEET

客 户

CUSTOMER : 午星电子(苏州)有限公司

型 号

MODEL : LC19F1RGBCT-CA-XM1

名 称

ITEM : SMD 发光二极管

部 品 号

PART NO : DC19F1RGBCT

物流路径

Logistics route: 光鼎→午星

SPEC NO :

承制方:

使用方:

MANUFACTURE:

USER:

拟 制	审 核	批 准
DESIGN	CHECK	APPRO.
殷燕	胡大春	居建

主 管	核 准
CHIEF	CONFIRM

*请确认后及时回签,自接定单后.本确认书将自动生效

*Please sign and return back after you approval.The specification will come into force automatically when is received the purchase.

连云港光鼎电子有限公司

PARALIGHT LIANYUNGANG ELECTRONICS CO.,LTD

连云港市灌南县经济开发区台湾工业园

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连云港市光鼎电子有限公司
LIANYUNGANG PARA LIGHT ELECTRONICS CO.,LTD

L-C19F1RGBCT-CA-XM1 承认书

部品描述	发光二极管
日期	2020-8-07
拟制 DESIGN	审核 CHECKED
相升林	胡大春

客户审签	
审核（认定） CHECKED BY	批准 APPROVED BY

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DATA SHEET

PART NO.: L-C19F1RGBCT-CA-XM1

REV: A / 0

CUSTOMER'S APPROVAL: _____

DCC: _____

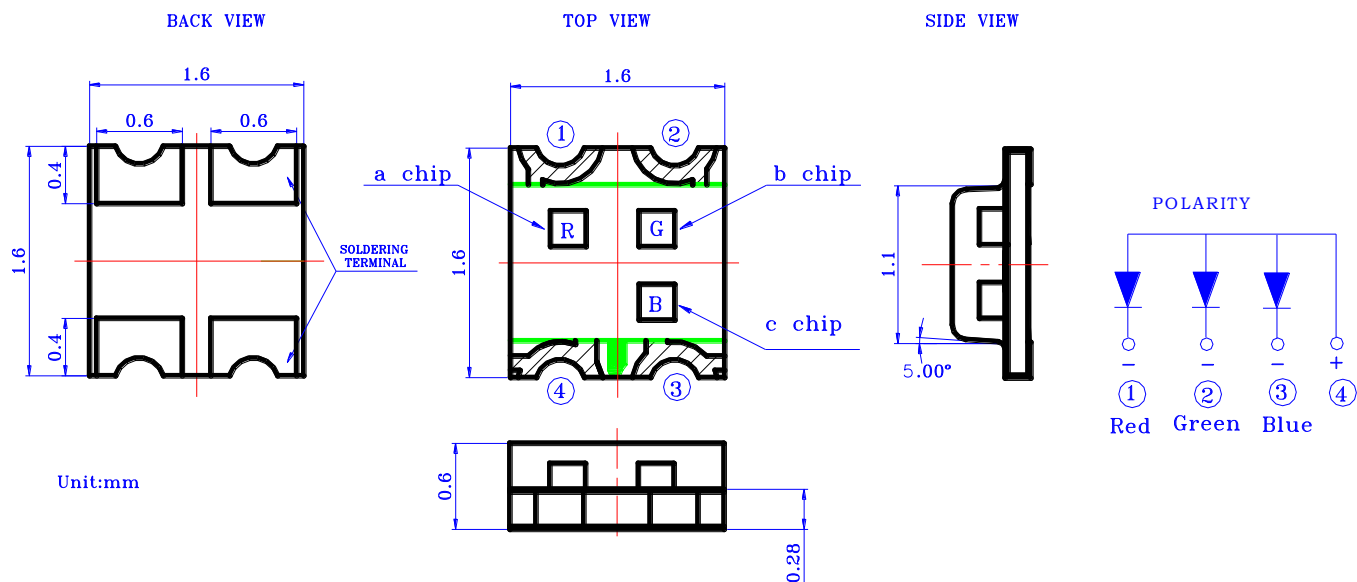
DRAWING NO.: DS-77-19-0005G

DATE: 2019-9-18

PAGE

1 of 15

● PACKAGE OUTLINE DIMENSIONS



Notes:

1. a chip: Red; b chip: Green; c chip: Blue
2. All dimensions are in millimeters.
3. Tolerance is $\pm 0.1\text{mm}$ (.004") unless otherwise noted.

● Features

- * Three color, top view, wide view angle Chip LED.
- * Package in 8mm tape on 7" diameter reels.
- * Compatible with automatic Pick & Place equipment.
- * Compatible with Reflow soldering and Wave soldering processes.
- * EIA STD package.
- * I.C. compatible.
- * Pb free product.
- * Moisture sensitivity level: 3



SURFACE MOUNT DEVICE LED

Part No.: L-C19F1RGBCT-CA-XM1

REV:A / 0

● Chip Materials

Chip	Light Color	Dice Material	Lens Color
a	R: Red	AlInGap	Water Clear
b	G: Green	InGaN	
C	B: Blue	InGaN	

● Absolute Maximum Ratings (Ta=25°C)

SYMBOL	PARAMETER	Rating			UNIT
		R	G	B	
P _D	Power Dissipation	75	60	60	mW
V _R	Reverse Voltage	5			V
I _F	Continuous Forward Current	25	15	10	mA
I _{PF}	Peak Forward Current	80	100	100	mA
ESD	Electrostatic Discharge Threshold (HBM) ^{Note A}	/	1000	1000	V
Topr	Operating Temperature Range	-40 ~ +85			°C
Tstg	Storage Temperature Range	-40 ~ +85			°C

Note A:

HBM: Human Body Model. Seller gives no other assurances regarding the ability of to withstand ESD

● Electro-Optical Characteristics (Ta=25°C)

SYMBOL		PARAMETER	TEST	MIN.	TYP.	MAX.	UNIT
VF	R	Forward Voltage	IF = 2mA	1.5		2.1	V
	G			2.2		2.8	
	B			2.4		3.0	
IV	R	Luminous Intensity	IF = 2mA	11.2		28	mcd
	G			45		112	
	B			11.2		18	
λ_D	R	Dominant Wavelength	IF = 2mA		620		nm
	G				530		
	B				470		
$\Delta\lambda$	R	Spectral Line Half-Width	IF = 2mA		17		nm
	G				15		
	B				25		
λ_p	R	Peak Emission Wavelength	IF = 2mA		630		nm
	G				520		
	B				468		
$2\theta_{1/2}$		Half Intensity Angle	IF = 2 mA		130		deg
IR	R	Reverse Current	VR = 5V			10	μA
	G					50	
	B					50	

Notes:

1. Luminous intensity is measured with a light sensor and filter combination that proximities the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. Caution in ESD :
Static Electricity and surge damages the LED. It is recommended use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
5. Major standard testing equipment by “Instrument System” Model : CAS140B Compact Array Spectrometer and “KEITHLEY” Source Meter Model : 2400.

● Red Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

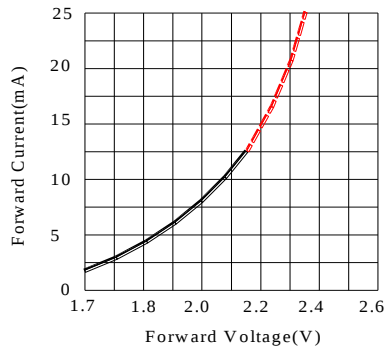


Fig.2 Forward Current vs. Forward Voltage

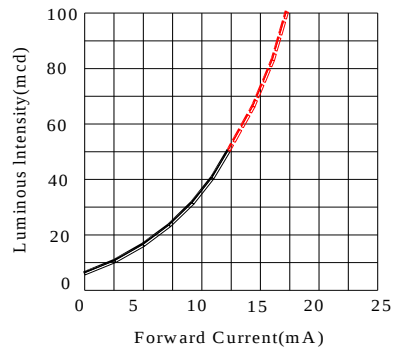


Fig.3 Luminous Intensity vs. Forward Current

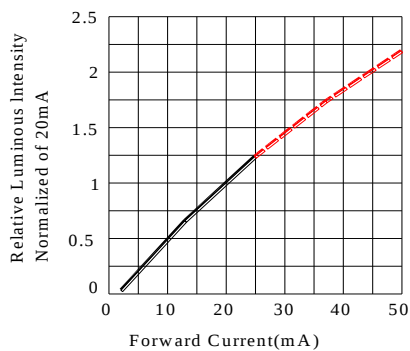


Fig.4 Relative Luminous Intensity vs. Forward Current

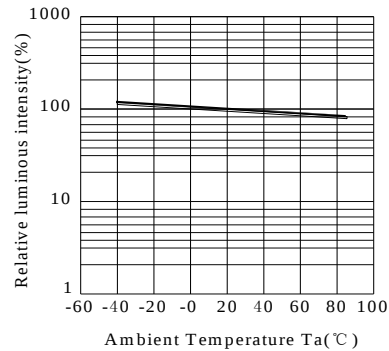


Fig.5 Luminous Intensity vs. Ambient Temperature

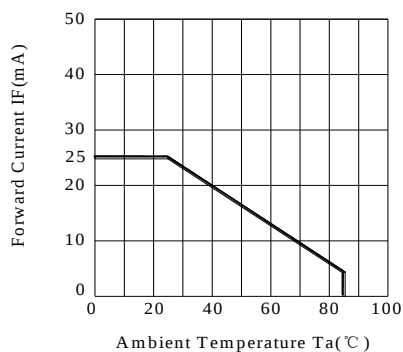


Fig.6 Forward Current Derating Curve

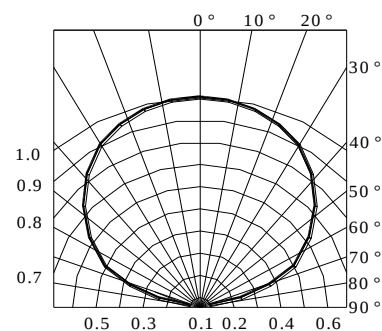


Fig.7 Relative Intensity vs. Angle

● **Green Typical Electro-Optical Characteristics Curves**

(25°C Ambient Temperature Unless Otherwise Noted)

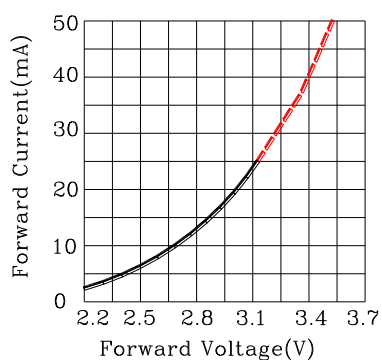


Fig.2 Forward Current vs. Forward Voltage

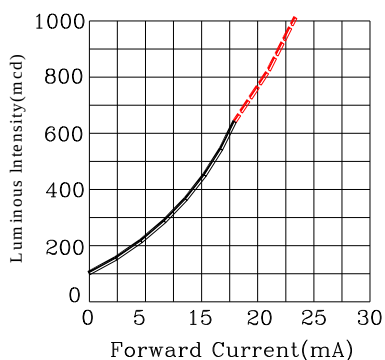


Fig.3 Luminous Intensity vs. Forward Current

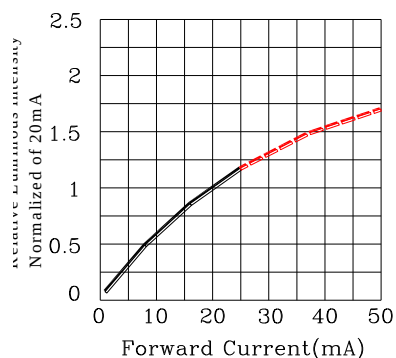


Fig.4 Relative Luminous Intensity vs. Forward Current

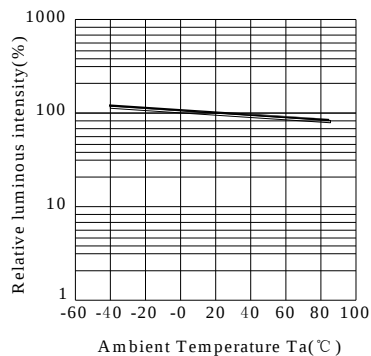


Fig.5 Luminous Intensity vs. Ambient Temperature

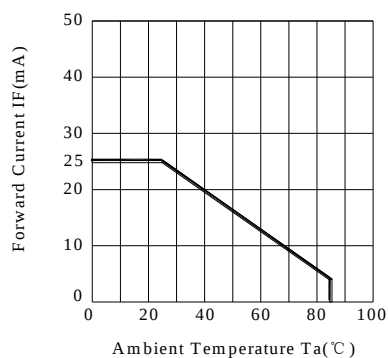


Fig.6 Forward Current Derating Curve

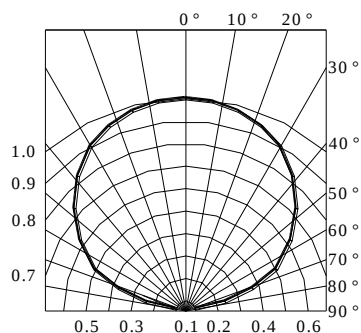


Fig.7 Relative Intensity vs. Angle

● Blue Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

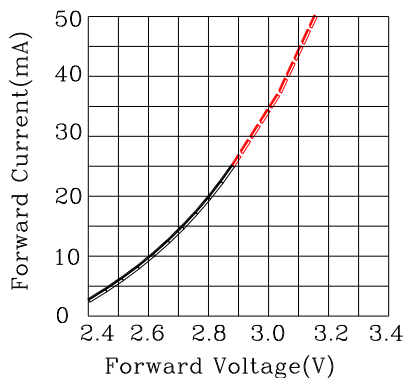


Fig.2 Forward Current vs. Forward Voltage

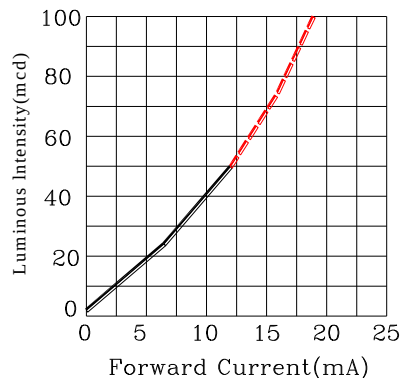


Fig.3 Luminous Intensity vs. Forward Current

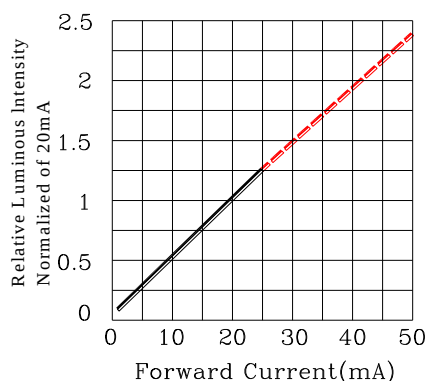


Fig.4 Relative Luminous Intensity vs. Forward Current

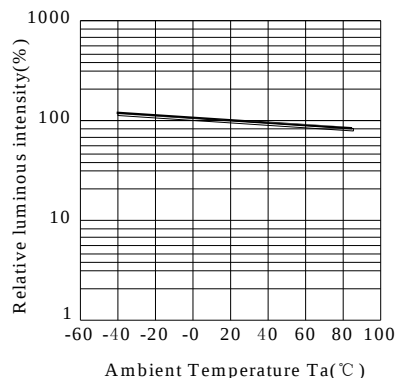


Fig.5 Luminous Intensity vs. Ambient Temperature

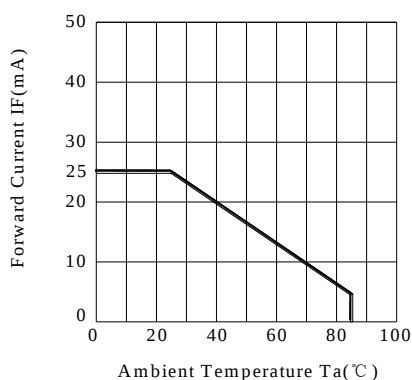


Fig.6 Forward Current Derating Curve

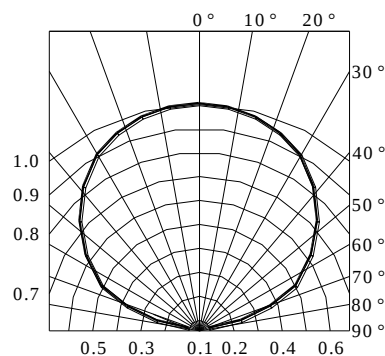


Fig.7 Relative Intensity vs. Angle



SURFACE MOUNT DEVICE LED

Part No.: L-C19F1RGBCT-CA-XM1

REV:A / 0

● Label Explanation



ITEM CODE:PARA LIGHT

PART NO: L-C19F1RGBCT-CA-XM1

IV --- Luminous Intensity Code

LOT NO:

EM	S	L	12	09	0110
A	B	C	D	E	F

A---EM: Emos Code

B---S:SMD

C---Local

D---Year

E---Month

F---SPEC.

PACKING QUANTITY OF BAG :

3000pcs for 150、170、110、155、115 series

4000pcs for 191 series

5000pcs for 192 series

DATE CODE:

2012	09	10
G	H	I

G--- Year

H--- Month

I --- Day

● Typical Electro-Optical Characteristics Curves

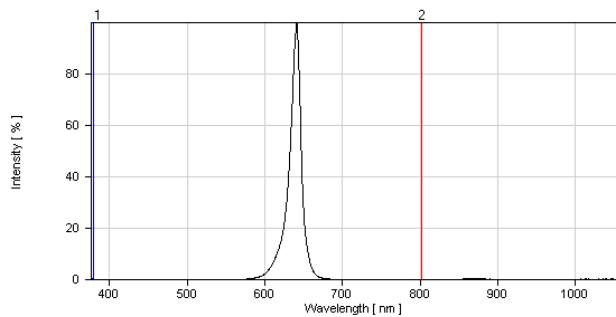


Fig.1 Red Relative Intensity vs. Wavelength

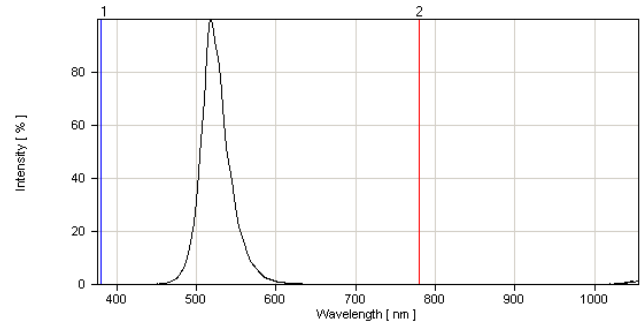


Fig.1 Green Relative Intensity vs. Wavelength

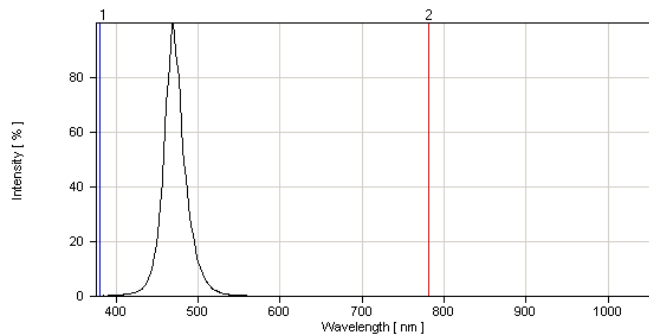
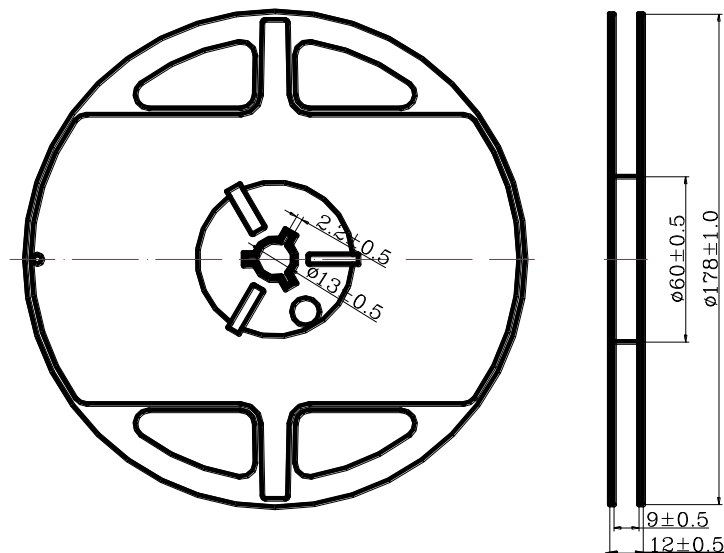


Fig.1 Blue Relative Intensity vs. Wavelength

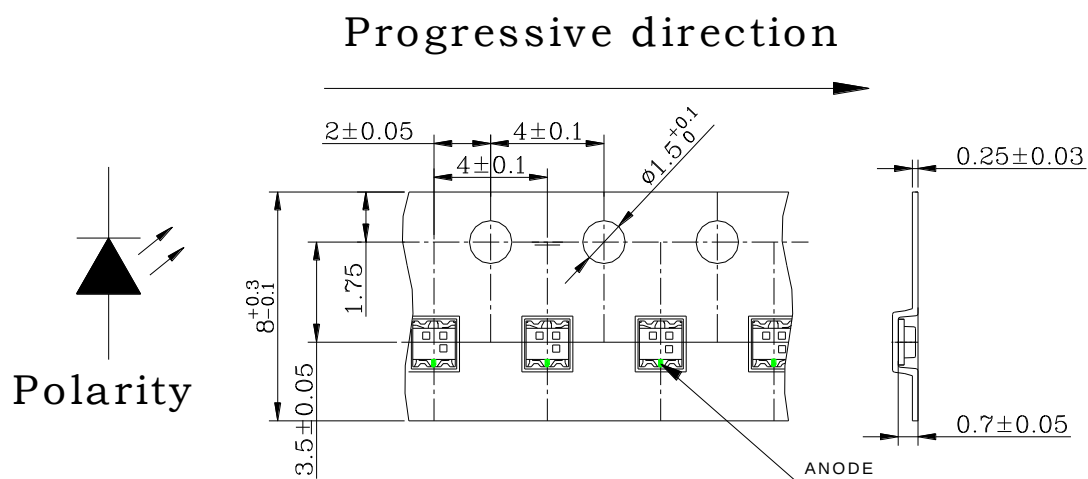
● Reel Dimensions



Notes:

1. Taping Quantity: 3000pcs
2. The tolerances unless mentioned is $\pm 0.1\text{mm}$, Angle $\pm 0.5^\circ$, Unit: mm.

● Package Dimensions Of Tape And Reel

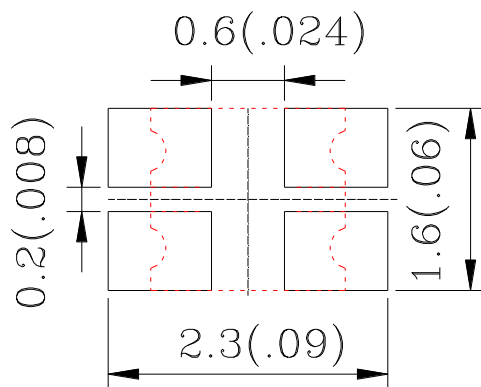


Notes: All dimensions are in millimeters.

● Cleaning

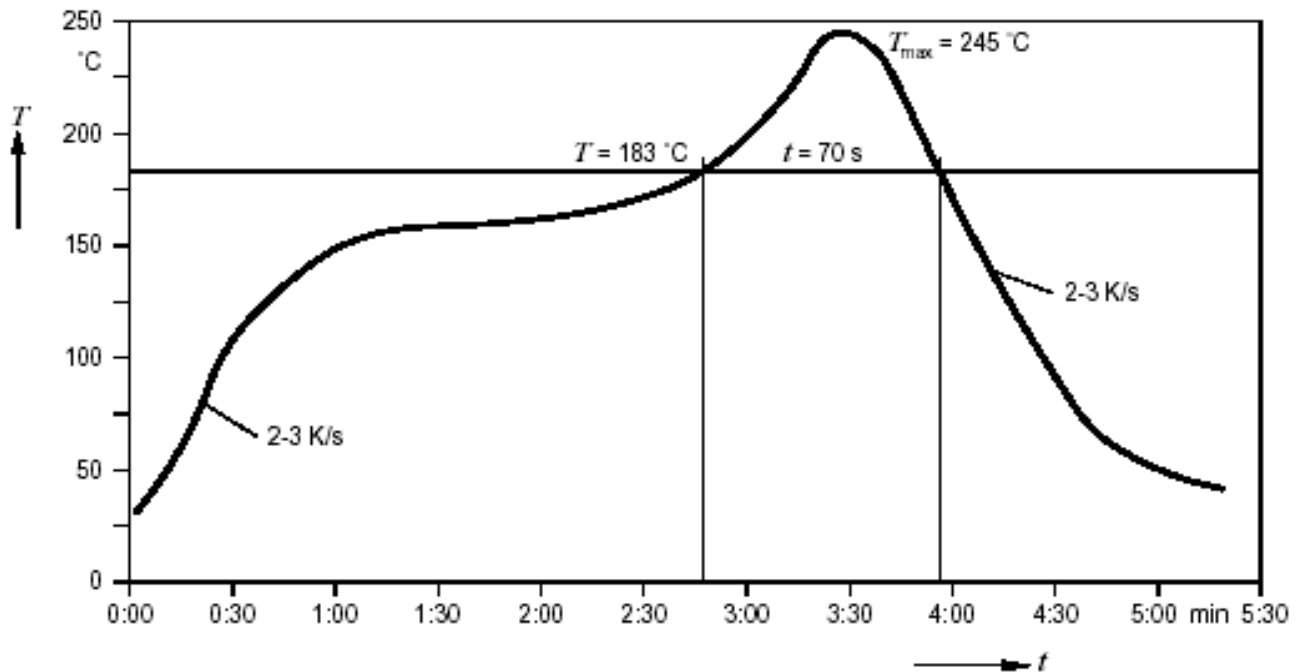
- * If cleaning is required , use the following solutions for less than 1 minute and less than 40°C.
- * Appropriate chemicals: Ethyl alcohol and isopropyl alcohol.
- * Effect of ultrasonic cleaning on the LED resin body differs depending on such factors as the oscillator output, size of PCB and LED mounting method. The use of ultrasonic cleaning should be enforced at proper output after confirming there is no problem.

● Suggest Soldering Pad Dimensions

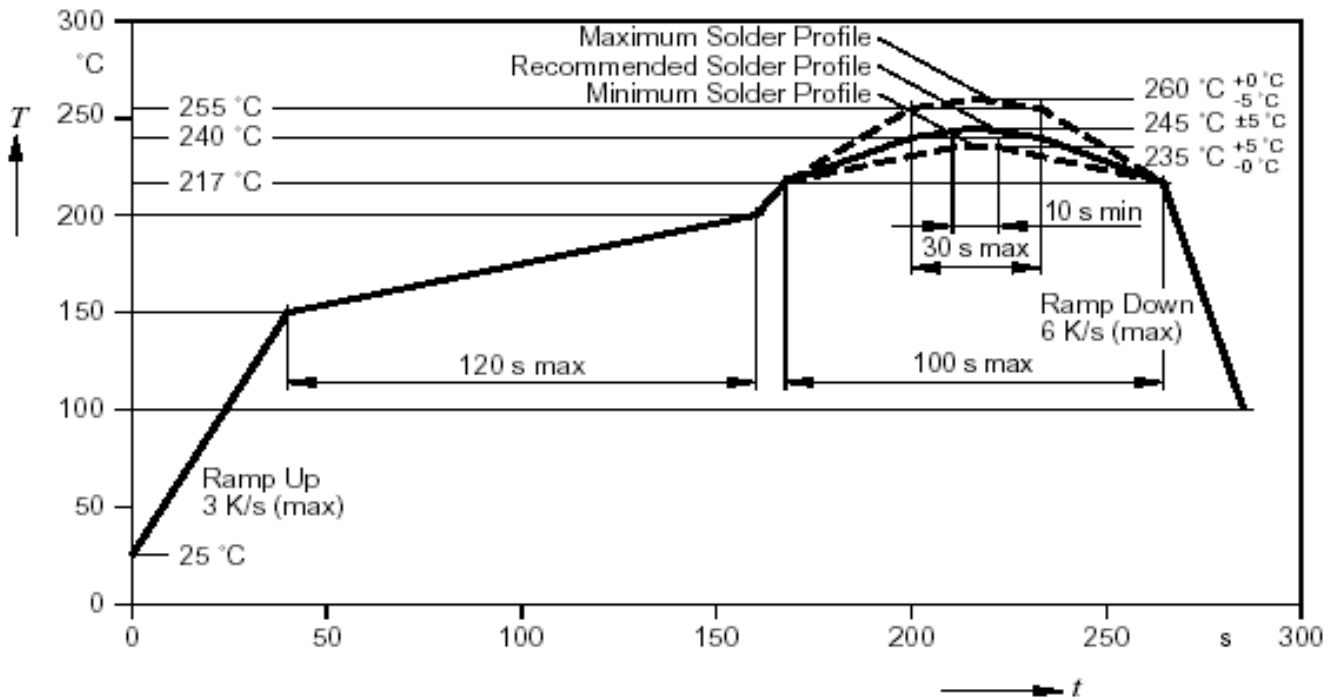


Direction of PWB camber
and go to reflow furnace

● Suggest Sn/Pb IR Reflow Soldering Profile Condition:



● Suggest Pb-Free IR Reflow Soldering Profile Condition:





SURFACE MOUNT DEVICE LED

Part No.: L-C19F1RGBCT-CA-XM1

REV:A / 0

● Bin Code List

Luminous Intensity (IV), Unit: mcd@2mA

Red (a chip)			Green (b chip)			Blue (c chip)		
Bin Code	Min	Max	Bin Code	Min	Max	Bin Code	Min	Max
L	11.2	18	Q	71	112	L	11.2	18
M	18	28	R	112	180	M	18	28

Tolerance of each bin are $\pm 15\%$

Dominant Wavelength (Hue), Unit: nm@2mA

Green (b chip)			Blue (c chip)		
Bin Code	Min	Max	Bin Code	Min	Max
AQ	525	530	AC	465	470
AR	530	535	AD	470	475

Tolerance of each bin are $\pm 1\text{nm}$

CAUTIONS

1.Application Limitation:

The LED's described here are intended to be used for ordinary electronic equipment (such as office equipment, communication equipment and household application). Consult PARA's sales in advance for information on application in which exceptional quality and reliability are required, particularly when the failure or malfunction of the LED's may directly jeopardize life or health (such as airplanes, automobiles, traffic control equipment, life support system and safety devices).

2.Storage:

If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment: $60 \pm 5^{\circ}\text{C}$ for 24 hours

3. Soldering

Do not apply any stress to the lead frame during soldering while the LED is at high temperature.

Recommended soldering condition.

Reflow Soldering:

Pre-heat 120~150 °C, 120sec. MAX., Peak temperature : 240 °C Max. Soldering time: 10 sec Max.

Soldering Iron: (Not recommended)

Temperature 300 °C Max., Soldering time : 3 sec. Max.(one time only), power dissipation of iron : 20W Max. use SN60 solder of solder with silver content and don't to touch LED lens when soldering.

Wave soldering:

Pre-heat 100 °C Max, Pre-heat time 60 sec. Max, Solder wave 260 °C Max, Soldering time 5 sec. Max. preformed consecutively cooling process is required between 1st and 2nd soldering processes.

4. Lead-Free Soldering

For Reflow Soldering:

- 1、Pre-Heat Temp:150-180°C,120sec.Max.
- 2、Soldering Temp: Temperature Of Soldering Pot Over 230°C,40sec.Max.
- 3、Peak Temperature:260°C , 5sec.
- 4、Reflow Repetition:2 Times Max.
- 5、Suggest Solder Paste Formula 93.3 Sn/3.1 Ag/3.1 Bi /0.5 Cu

For Soldering Iron (Not Recommended):

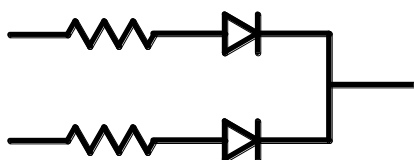
- 1、Iron Tip Temp:350°C Max.
- 2、Soldering Iron:30w Max.
- 3、Soldering Time:3 Sec. Max. One Time.

For Dip Soldering:

- 1、Pre-Heat Temp:150°C Max. 120 Sec. Max.
- 2、Bath Temp:265°C Max.
- 3、Dip Time:5 Sec. Max.

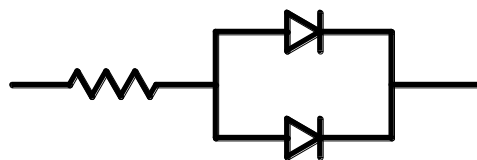
5. Drive Method

Circuit model A



(A)Recommended circuit.

Circuit model B



(B)The difference of brightness between LED`s could be found due to the Vf-If characteristics of LED.



SURFACE MOUNT DEVICE LED

Part No.: L-C19F1RGBCT-CA-XM1

REV: A / 0

6. Reliability Test

Classification	Test Item	Test Condition	Reference Standard
Endurance Test	Operation Life	Ta= Under Room Temperature As Per Data Sheet Maximum Rating *Test Time= 1000HRS (-24HRS,+72HRS)*@20mA.	MIL-STD-750D: 1026 (1995) MIL-STD-883D: 1005 (1991) JIS C 7021:B-1 (1982)
	High Temperature High Humidity Storage	IR-Reflow In-Board, 2 Times Ta= 65±5℃, RH= 90~95% *Test Time= 1000HRS±2HRS	MIL-STD-202F: 103B(1980) JIS C 7021: B-11 (1982)
	High Temperature Storage	Ta= 105±5℃ Test Time= 1000HRS (-24HRS, 72HRS)	MIL-STD-883D: 1008 (1991) JIS C 7021:B-10 (1982)
	Low Temperature Storage	Ta= -55±5℃ *Test Time=1000HRS (-24HRS, 72HRS)	JIS C 7021:B-12 (1982)
Environmental Test	Temperature Cycling	105±5℃ -55±5℃ 10mins 10mins 100 Cycles	MIL-STD-202F: 107D (1980) MIL-STD-750D: 1051(1995) MIL-STD-883D: 1010 (1991) JIS C 7021: A-4 (1982)
	Thermal Shock	IR-Reflow In-Board, 2 Times 105±5℃ -55℃±5℃ 10mins 10mins 100 Cycles	MIL-STD-202F: 107D(1980) MIL-STD-750D: 1051(1995) MIL-STD-883D: 1011(1991)
	Solder Resistance	Tsol= 260 ±5℃ Dwell Time= 10 ±1sec	MIL-STD-202F: 210A(1980) MIL-STD-750D: 2031(1995) JIS C 7021: A-1 (1982)
	Solder ability	Tsol= 235 ±5℃ Immersion time 2±0.5 sec Immersion rate 25±2.5 mm/sec Coverage ≥95% of the dipped surface	MIL-STD-202F: 208D(1980) MIL-STD-750D: 2026(1995) MIL-STD-883D: 2003(1991) IEC 68 Part 2-20 JIS C 7021: A-2 (1982)

7. Others:

The appearance and specifications of the product may be modified for improvement without notice.



QC 工程图

产品类别: SMD

QC FLOW CHART

REV: A/5 1/5页

流程图 flow char	工序名称 Working procedure	生产管制Produce Control		品质管制Quality Control			责任人 Authorized	确认人Checker			检验标准 Standards	生产标准 Manufacture standard	相关记录Record	备注 Note
		主要设备 Main Device	主要项目 Main Item	检验项目 Check Item	检验方法 Check Device	检验频率 Check Frequency	作业员 Operator	IQC	IPQC	FQC				
<pre>graph TD; 1[1] --> 2{2}; 2 --> 3{3}; 3 --> End[];</pre>	进料 Incoming		规格 Spec 数量 Quantity										采购收料单	
	进料检验 Incoming Inspection	显微镜 Microscope 投影仪 Projector	银胶 silver epoxy 晶片 Dice 支架 PCB 环氧树脂 epoxy 金线 Au-Line TAPE	外观 appearance 尺寸 Dimension 实用性 practicability	显微镜 Microscope 卡尺 callipers 塞规 plug guage LED-628测试机 LED-628 test machine 焊线机 B/D machine 镊子 forceps 投影仪 projection Machine 防静电 ESD 电源供应器 current supply	批检 lot check: AQL CR:0/1 MA:0.065 MI:0.15		√			LD-I/Q033-00 LD-I/Q029-00 LD-I/Q028-00 LD-I/Q040-10 LD-I/Q037-10		IQC进料检验单 进料品质异常回馈单 (VDCS)	
	固晶 A/M	自动固晶机 A/M machine 扩张机 expand dice machine 烤箱 Oven	银胶回温、清 洗 silver epoxy thawing、 cleanout 固晶位置 Dice position 银胶烘烤 Silver epoxy Roast 银胶用量 silver epoxy dosage 瓷嘴寿命 porcelain nib lifespan	晶片推力 Dice thrust force 固晶位置 Dice position 银胶用量 Sliver epoxy dosage 烘烤条件 Roast condition 烤箱温度 Oven temperature	推力计 push force 显微镜 Microscope 显微镜 Microscope 目测 eyeballing	随机/ 机台/班 random/ equipment/ shift 至少 3 次/ 机台/ 班 At least 3 times /Equipment/shift 每次/烤箱/入库 时间段/晶片规格	√		√		LD-I/Q094-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E212-70 LD-I/E213-70 LD-I/E214-70 LD-I/E215-70 LD-I/E216-70 LD-I/E217-70	SMD 固晶首巡检查表 SMD线-AB/AM站首巡检 检查表 X-R管制圖 银胶烘烤温度时间记录表 吸嘴使用寿命追踪卡 银胶回温记录表 LED手动烤箱温度测试记 录表 烤箱温度、时间记录表 银胶清洗记录表 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 固晶参数设定追踪记录表	



QC 工程图

产品类别: SMD

QC FLOW CHART

REV: A/5 2/5页

流程图 flow char	工序名称 Working procedure	生产管制Produce Control		品质管制Quality Control			责任人 Authorized	确认人Checker			检验标准 Standards	生产标准 Manufacture standard	相关记录Record	备注 Note
		主要设备 Main Device	主要项目 Main Item	检验项目 Check Item	检验方法 Check Device	检验频率 Check Frequency	作业员 Operator	IQC	IPQC	FQC				
	焊线 A/B	自动焊线机 Automatism Solder machine 电浆清洗机 Plasma cleaning machine	焊线温度 Solder temperature 球形形状 Roundness shape 焊接位置 Jointing position 焊接弧度 Jointing radian 瓷嘴寿命 porcelain nib lifespan	拉力 press force 金球推力 Golden ball thrust 1, 2位置 1/2position 弧度 Radian 金球尺寸 Golden ball dimension 断点位置 Break point position	拉力计 Pull force meter 推力测试仪 Force Testing Device 显微镜 microscope 显微镜 microscope 显微镜 microscope 显微镜 microscope 目测 eyeballing	首检: 随机/ 机 台/班 random/ equipment/ shift 巡检: 至少 2 次/ 机台/班 At least 2times /Equipment/shift	√		√		LD-I/Q095-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E218-70 LD-I/E220-70 LD-I/E219-70	SMD 焊线首巡检检查表 SMD线-AB/AM站首巡检 检查表 X-R管制图 瓷嘴使用寿命追踪卡 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 焊线参数设定追踪记录表 电浆清洗记录表	
	塑胶成型 Molding	机预热器 Molding preheater 烤箱 Oven	机台参数 Machine parameter 胶饼回温 Epoxy rewarm 烤箱条件 Roast condition 胶饼外观 Epoxy Appearance	外观尺寸 Appearance Size 机台参数 Machine parameter 烤箱温度 Roast condition	显微镜 microscope 目视 eyeballing 温度计 Thermometer	首检 随机/ 机台/班 random/ equipment/ shift 至少3次/ 机台/ 班 At least 3 times /Equipment/shi ft	√		√		LD-I/Q096-70	生产组装规格书 AS 生产计划单 Produce plan sheet OS-70-390-001 OS-70-400-001 OS-70-450-001 OS-70-350-001	SMD M/D首巡检检查表 SMD MD/切割站首巡检检 查表 温湿度管控表 SMD线M/D后产品检查表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 SMD机台参数记录表 电浆清洗记录表 SMD胶饼使用记录表 SMD MOLDING模具更换 确认记录表 冰箱温度记录表 胶饼回温时间记录标签 LED手动烤箱温度测试记 录表 烤箱温度、时间记录表	



产品类别: SMD

QC 工程图

QC FLOW CHART

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流程图 flow char	工序名称 Working procedure	生产管制Produce Control		品质管制Quality Control			责任人 Authorized	确认人Checker			检验标准 Standards	生产标准 Manufacture standard	相关记录Record	备注 Note
		主要设备 Main Device	主要项目 Main Item	检验项目 Check Item	检验方法Check Device	检验频率 Check Frequency	作业员 Operator	IQC	IPQC	FQC				
	切割Cutting	切割机 Cut machine	机台参数 Machine parameter 外观尺寸 Appearance Size	机台参数 Machine parameter 外观 Appearance 尺寸 Size	目测 eyeballing 显微镜 microscope 卡尺 Calipers	首检 随机/ 机台/班 random/ equipment/ shift 至少3次/ 机台/ 班 At least 3 times /Equipment/shi ft	√		√		LD-I/Q096-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E225-70 LD-I/E226-70 LD-I/E227-70	SMD 切割、外观首巡检检 查表 SMD MD/切割站首巡检检 SMD 线切割后产品检查表 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 刀具参数记录表	
	看外观 (单颗剥离、 吹毛刺) Appearance Inspection (Peel device)	显微镜 Microscope 单颗剥离机 Peel device	气泡 Bubble 杂物 sundries 切割不良 Cutting defect 手动 hand movement	外观 Appearance 尺寸 Size	显微镜 microscope 卡尺 Calipers 目视 eyeballing	首检 随机/ 机台/班 random/ equipment/ shift 至少3次/ 机台/ 班 At least 3 times /Equipment/shi ft	√		√		LD-I/Q096-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E228-70 LD-I/E229-70	SMD 切割、外观首巡检检 查表 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单	
	分BIN测试 Classify Bin	超声波清洗 机 Ultrasonic cleaner 分BIN机 Classify BIN machine Bin 测试机 LED628/638 machine	样品校正 Sampling 参数设定 Set parameter BIN级设定 Set BIN Code	机器参数 Machine parameter 参数设定 Set 光电性 Photo electricity	目视 eyeballing 目视 eyeballing 测试机 LED tester	首检 随机/ 机台/班 random/ equipment/ shift 2次/班/机台 2times/shift	√		√		LD-I/Q097-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E231-70	SMD TEST首巡检检查表 SMD电性测试首件检查表 测试后产品检查表 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 分BIN等级对照表 测试站STD效验记录表 生产变更单 测试清箱记录表	



QC 工程图

产品类别: SMD

QC FLOW CHART

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流程图 flow char	工序名称 Working procedure	生产管制Produce Control		品质管制Quality Control			责任人 Authorized	确认人Checker			检验标准 Standards	生产标准 Manufacture standard	相关记录Record	备注 Note
		主要设备 Main Device	主要项目 Main Item	检验项目 Check Item	检验方法 Check Device	检验频率 Check Frequency	作业员 Operator	IOC	IPQC	FQC				
	自动包装 Taping	自动包装机 Taping machine	包装数量 quantity 机台参数 Machine parameter 包装规格 specification 包装外观 Appearance	包装数量 Quantity tape拉力 Peel force of tape 包装规格 specification 包装外观 Appearance	目测 Eyeballing 拉力仪 Peel force teste 目视 Eyeballing 目视 Eyeballing	首检 随机/ 机台/班 random/ equipment/ shift 2次/班/机台 2times /shift	√		√		LD-I/Q098-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E232-70 LD-I/E233-70	SMD TAPING、包装首巡 检检查表 SMD TAPING自检检查表 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 卷装STD效验记录表 分BIN清箱记录表 TAPING载带拉力记录表 TAPING站_系列尺寸测量 记录表 LED手动烤箱温度测试记 录表 烤箱温度、时间记录表	
	最后检查 Final Inspection	显微镜 Microscope	外观 Appearance 数量 Quantity	外观 Appearance 数量 Quantity	显微镜 Microscope	AQL:CR:0/1,主 缺(Major): 0.04 次缺(Minor): 0.10	√		√		LD-I/Q098-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E234-70 LD-I/E235-70	SMD TAPING、包装首巡 检检查表 温湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单	
	最终包装 Packing	真空包装机 Packing machine	包装外观 Appearance 包装数量 Quantity 包装规格 Specification 包装标签 Label	包装数量 Quantity 包装外观 Appearance 包装标签 Label 包装方式 Specification	目测 Eyeballing 目测 Eyeballing 目测 Eyeballing 目测 Eyeballing	首检 First check	√		√		LD-I/Q098-70	生产组装规格书 AS 生产计划单 Produce plan sheet LD-I/E236-70 LD-I/E237-70	湿度管控表 SMD线流程单 静电环测试记录卡 异常处理通知单 发料单 品质不符通知单 包装站品管检验记录	温



产品类别: SMD

QC 工程图

QC FLOW CHART

REV: A/5 5/5页

流程图 flow char	工序名称 Working procedure	生产管制Produce Control		品质管制Quality Control			责任人 Authorized	确认人Checker			检验标准 Standards	生产标准 Manufacture standard	相关记录 Record	备注 Note
		主要设备 Main Device	主要项目 Main Item	检验项目 Check Item	检验方法 Check Device	检验频率 Check Frequency	作业员 Operator	IQC	IPQC	FQC				
	FQC	显微镜 Microscope 测试机 LED tester		产品外观 Appearance 包装尺寸 Packing size 包装数量 Packing quantity REEL规格 Reel spec 光电性 Photoelectric	目视 Eyeballing 卡尺 Calipers 目视 Eyeballing 目视 Eyeballing 光谱仪 LED tester	采用《零缺陷抽样方案》，AQL为CR=0/1, MAJ: 0.065, MIN: 0.15 Sampling level: adopt《zero defect sampling level》AQL为CR=0/1, MAJ: 0.065, MIN: 0.15.				√	LD-I/Q099-70		FQC检验记录 FQC电性效验记录表	
	入库 Enter warehouse		数量 quantity				√					生产计划单 Produce plan sheet	生产计划单	
	OQC			外观 Packing 包装数量 Packing quantity	目视 Eyeballing	批检 lot check 0/1			√		LD-I/Q064-00		出装箱检查报告 品质不符通知单	
	出货 Shipment			出货装箱明细 Shipment list									出装箱检查报告 品质不符通知单	
备注: ① 抽检: 依照MIL-STD-105E表II抽样检验。② 符号说明: □ 准备 ◇ 检验 ○ 操作 ▽ 完成 Remark: ①take out check:according to MIL-STD-105E to sample and check. ②denoatation show: □fitout ◇check ○operate ▽ finish														

Producer:韩俊

Approve:武根霞

Date:2020.3.9



光鼎电子有限公司
FQC检验记录

产品名称: ☐ DISPLAY ☐ LAMP ☒ SMD ☐ IRM ☐

单位: PCS 编号:

产品型号	L-C19F1RGBCT-CA-XM1	送检日期	2020.07.15	送检数	144.000								
计划单批号	ENSL20070628	生产周期		抽样数	476/218								
检查水平: ☐ MIL-STD-105E III AQL: MA: 0.065 CR <u>0/1</u> ☒ 零缺陷抽样方案 MI: 0.15 判定数(AC/RE) MA <u>0/1</u> 严格度 ☒ 正常 ☐ 放宽 ☐ 加严 ☐ 另定 MI <u>0/1</u>													
包装检查	1. 内箱 OK 2. 内包装 OK												
序号	项目				不良数	备注							
	☐ Display	☐ Lamp ☒ SMD	☐ IRM	☐	CR MA MI								
1	光电性	光电性	光电性		0 0 0								
2	胶体部份	胶体部份	胶体部份		0 0 0								
3	印码部份	支架部份	支架部份		/ / /								
4	PIN部份	包装部份	包装部份		0 0 0								
5	REF、油墨	其它	印码部份		0 0 0								
6	包装部份		其它										
典型尺寸数据(mm)													
NO.	规格	1	2	3	4	5	6	7	8	9	10		
长	1.60±0.1	1.60	1.61	1.58	1.59	1.58	1.59	1.60	1.58	1.60	1.61		
宽	1.60±0.1	1.61	1.61	1.60	1.61	1.59	1.60	1.61	1.61	1.61	1.61		
高	0.60±0.1	0.60	0.60	0.61	0.61	0.61	0.61	0.61	0.60	0.60	0.60		
电性能	VF:1.5-2.1v (R)	1.95	1.98	1.97	1.97	1.96	1.98	1.98	1.94	1.96	1.96		
	VF:2.2-2.8v (G)	2.61	2.64	2.62	2.62	2.60	2.63	2.61	2.63	2.61	2.61		
	VF:2.4-3.0v (B)	2.71	2.71	2.72	2.72	2.71	2.72	2.71	2.72	2.72	2.71		
	IR<10ua (R)	0	0	0	0	0	0	0	0	0	0		
	IR<50ua (G)	0	0	0	0	0	0	0	0	0	0		
	IR<50ua (B)	0	0	0	0	0	0	0	0	0	0		
判定	☒ 合格 ☐ 不合格						检验员	签名: 张兰 日期: 2020.07.16		审核	签名: 刘小慧 日期: 2020.07.16		
不合格处置方式													
☐ 返工 ☐ 特采 其它说明:													

HD-R/Q043

异常处理通知单

☐异常处理 ☐异常补料

年 月 日

编号:

站 别		投 产 数 量	
产 品 型 号		异 常 数 量	
产 品 批 号		申 请 数 量	
异常描述:			
主 管		当 班 领 班	
品管部确认:			
签 名:			
部 门 意 见	制程课:		
	签 名:		
	设备课:		
	签 名:		
	品管部:		
	签 名:		
	制造部:		
签 名:			
资材部:			
签 名:			
采购课:			
签 名:			
研发部:			
是否更改 PFMEA			
☐ 是 ☐ 否			
签 名:			
总经理 意 见	(必要时)	通 知	☐ 总经理室 ☐ 资 材 部 ☐ 制 程 课 ☐ 制 造 部 ☐ 品 管 部 ☐ 设 备 课 ☐ 采 购 课 ☐ 研 发 部
处 理 跟 查			