

喬山健身器材(上海)有限公司

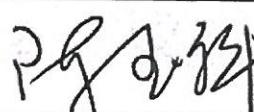
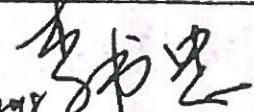
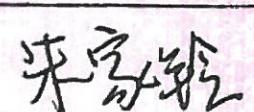
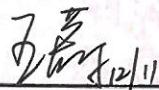
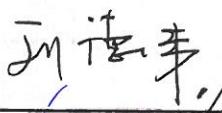
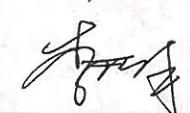
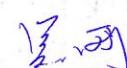
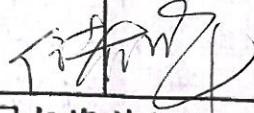
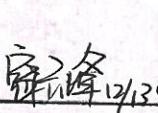
樣品承認書

SAMPLE SPECIFICATION FOR APPROVAL

品名: LED LAMP; LED 0603 Green;; SMD 料号: 1000425674

圖號: _____

機種: Paragon X新產品模具確認設計變更其它

廠商	承認章	核準	校對	主辦
	APPROVED	APPROVAL BY 	CHECKED BY 	PREPARED BY 
資材核準		資材主辦		
是否需要測試	<input type="checkbox"/> 是 <input type="checkbox"/> 否	測試主辦		
是否安規認證	<input type="checkbox"/> 是 <input type="checkbox"/> 否	認證主辦		
承認章	核準		主辦	
APPROVED	APPROVAL BY		PREPARED BY	
喬山公司	業務	<input type="checkbox"/> 認可 <input type="checkbox"/> 有條件認可 <input type="checkbox"/> 不予以認可		
	品保	 <input checked="" type="checkbox"/> 認可	 <input type="checkbox"/> 有條件認可	 <input type="checkbox"/> 不予以認可
	研發	 <input type="checkbox"/> 認可	 <input type="checkbox"/> 有條件認可	 <input type="checkbox"/> 不予以認可

廠商名稱 连云港光鼎电子有限公司 電話 TEL 13761640200地址 连云港经济开发区威海路8号 傳真 FAX 051883692886廠商資歷: ISO9001 ISO14001 其他送樣履歷: 首次送樣 二次送樣 三次送樣

呈報人員 Applicant	劉金雲 liujinyun/JIS1	呈報日期 Date	2018/12/14 09:23:28
部 門 Department	興順廠研發電控	編 號 No.	JIS1-001-1812042
是否需填寫金額 (請選擇) Need to fill in amount or not	非金額類	簽呈類別 Type	其他

主 旨 Subject	关于paragon x新元件承认书签核申请
說 明 Detail	<p>1. 1 料号: 1000425674 1. 2 规格: LED-LAMP;LED 0603 Green; ;SMD 1. 3 供应商: 沪鼎 1. 4 规格书: 详见附件1000425674承认书</p> <p>2. 1 料号: 1000432977 2. 2 规格: 連接器; ;2. 54mm;5PIN;90度;BH1L-1x5-06 (LF) ;TKP; ;黑;DIP; 2. 3 供应商: 骏品端子 2. 4 规格书: 详见附件1000432977承认书</p> <p>2. 1 料号: 1000432983 2. 2 规格: 連接器; ;2. 54mm;5PIN;90度;2201L-1x5-84 (LF) ;TKP; ;黑;DIP; 2. 3 供应商: 骏品端子 2. 4 规格书: 详见附件1000432983承认书</p>
擬 辦 Proposed for Review	请领导核准, 谢谢!
附 件 Attachment	   1000432977承认书. pdf 1000432983承认书. pdf 1000425674承认书. pdf Total Size : 18.11 Mb (*僅接受 JPG副檔名、以附件方式、勿直接貼圖!)

憑印證號	2018/12/14 09:32
由左至右簽核 Approval Sequence	chuhua/JIS1, scottlin/jhtgroup
簽核狀態 Approval Status	已簽
會簽人員	



PARA LIGHT ELECTRONICS CO., LTD.
4F, No.1, Lane 93, Chien Yi Road, Chung Ho City, Taipei, Taiwan.
Tel: 886-2-2225-3733 Fax: 886-2-2225-4800
E-mail: para@para.com.tw <http://www.para.com.tw>

DATA SHEET

PART NO.: L-C191LGCT

REV: C / 3

CUSTOMER'S APPROVAL : _____

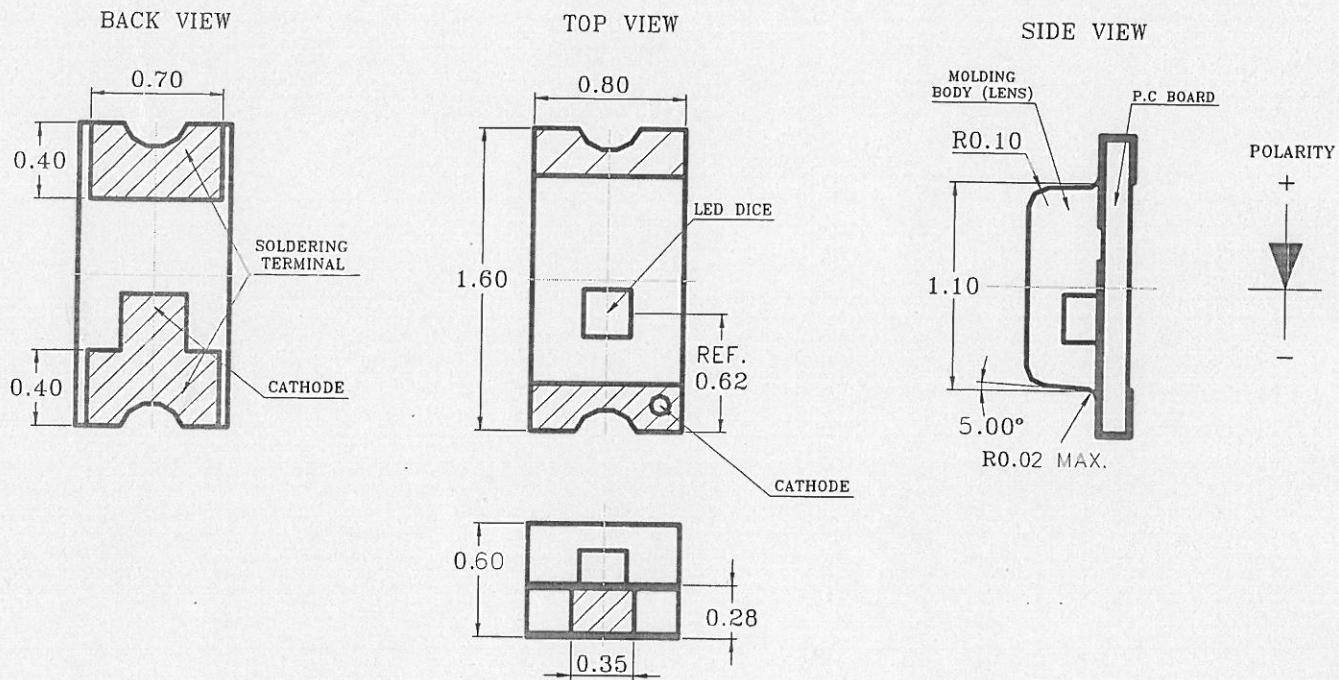
DCC : _____

DRAWING NO. : DS-74-04-0001

DATE : 2017-1-12

PAGE 1 of 14

● PACKAGE OUTLINE DIMENSIONS



Notes:

1. All dimensions are in millimeters.
2. Tolerance is $\pm 0.1\text{mm}$ (.004") unless otherwise noted.

● Features

- * Top view, wide view angle, single color Chip LED.
- * Package in 8mm tape on 7" diameter reels.
- * Compatible with automatic Pick & Place equipment.
- * Compatible with Infrared and Wave soldering reflow solder processes.
- * EIA STD package.
- * I.C. compatible.
- * Pb free product.
- * Meet RoHS Green Product.



SURFACE MOUNT DEVICE LED

Part No. : L-C191LGCT

REV:C / 3

● Chip Materials

- * Dice Material : InGaN
- * Light Color : Super Green
- * Lens Color : Water Clear

● Absolute Maximum Ratings(Ta=25°C)

Symbol	Parameter	Rating	Unit
PD	Power Dissipation	100	mW
IPF	Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
IF	Continuous Forward Current	25	mA
-	De-rating Linear From 25°C	0.25	mA/°C
VR	Reverse Voltage	5	V
ESD	Electrostatic Discharge Threshold(HBM)Note A	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)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	IV	280	500		mcd	IF=20mA
Viewing Angle	2θ 1/2		130		deg	Note 2
Peak Emission Wavelength	λ p		518		nm	Measurement @ Peak
Dominant Wavelength	λ d		525		nm	IF=20mA
Spectral Line Half-Width	Δ λ		15		nm	
Forward Voltage	VF		3.2	3.55	V	IF =20mA
Reverse Current	IR			50	μ A	VR = 5V



SURFACE MOUNT DEVICE LED

Part No. : L-C191LGCT

REV:C / 3

● Bin Code List

Luminous Intensity(IV), Unit:mcd@20mA		
Bin Code	Min	Max
T	280	450
U	450	710

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

Forward Voltage(VF), Unit:V@20mA		
Bin Code	Min	Max
K9	2.95	3.10
K10	3.10	3.25
K11	3.25	3.40
K12	3.40	3.55

Tolerance of each bin are ± 0.1 Volt

Dominant Wavelength (Hue),Unit: nm@20mA		
Bin Code	Min	Max
AP	520	525
AQ	525	530

Tolerance of each bin are ± 1 nm

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.

- Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

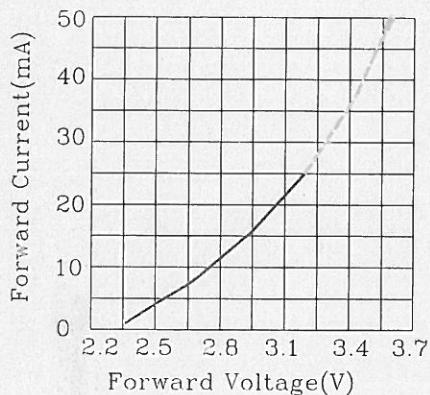


Fig.2 Forward Current vs. Forward Voltage

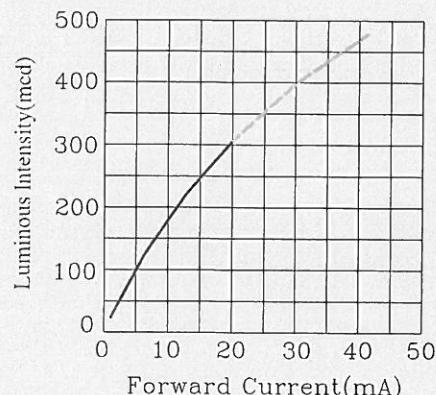


Fig.3 Luminous Intensity vs. Forward Current

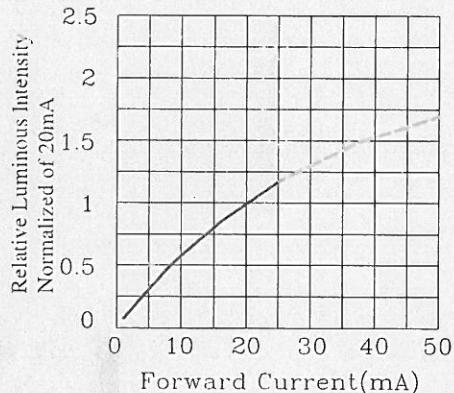


Fig.4 Relative Luminous Intensity vs. Forward Current

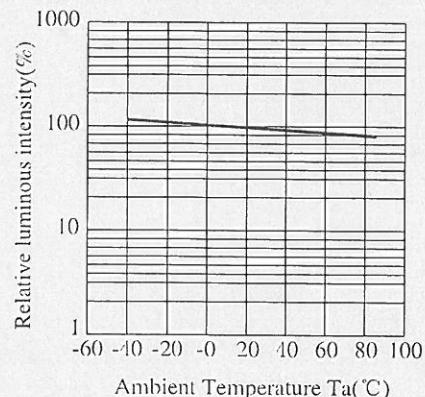


Fig.5 Luminous Intensity vs. Ambient Temperature

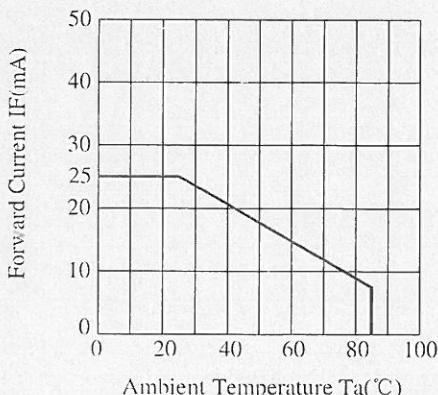


Fig.6 Forward Current Derating Curve

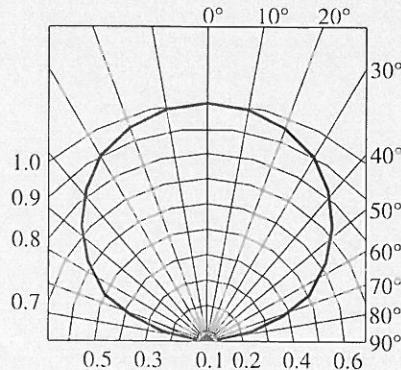


Fig.7 Relative Intensity vs. Angle

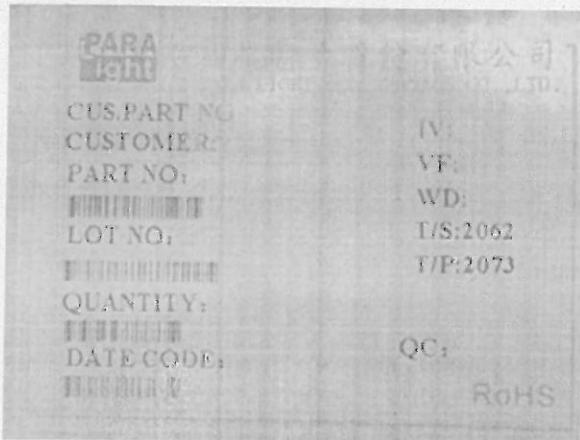


SURFACE MOUNT DEVICE LED

Part No. : L-C191LGCT

REV:C / 3

● Label Explanation



ITEM CODE:PARRA LIGHT

PART NO: L-C191LGCT

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

L---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

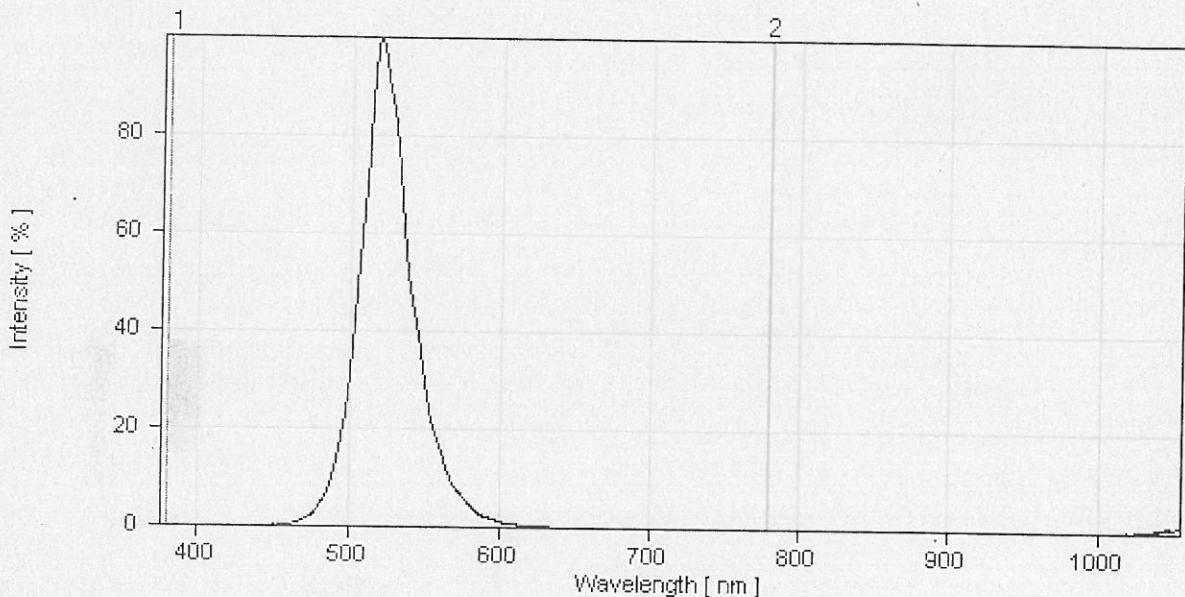
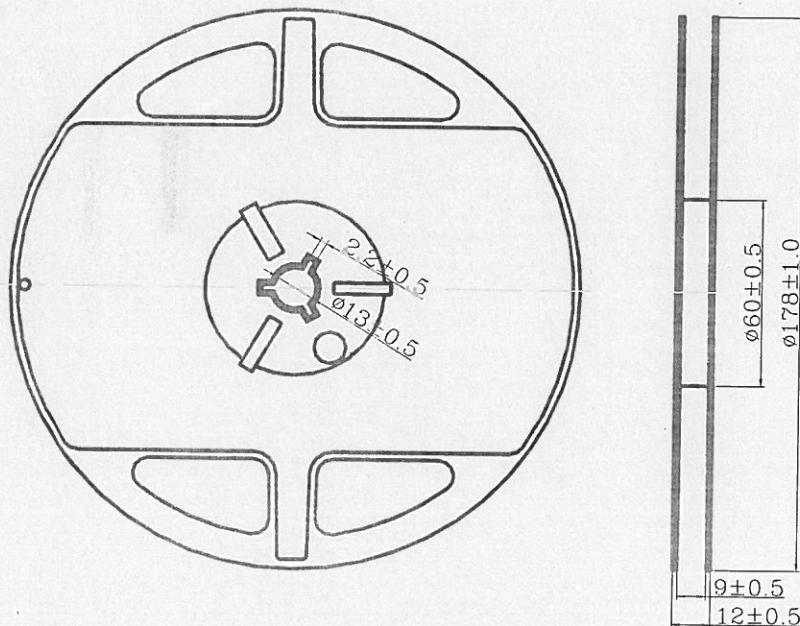


Fig.1 Relative Intensity vs. Wavelength

- Reel Dimensions

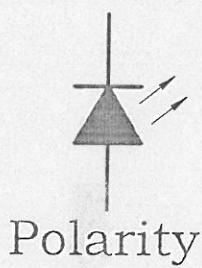


Notes:

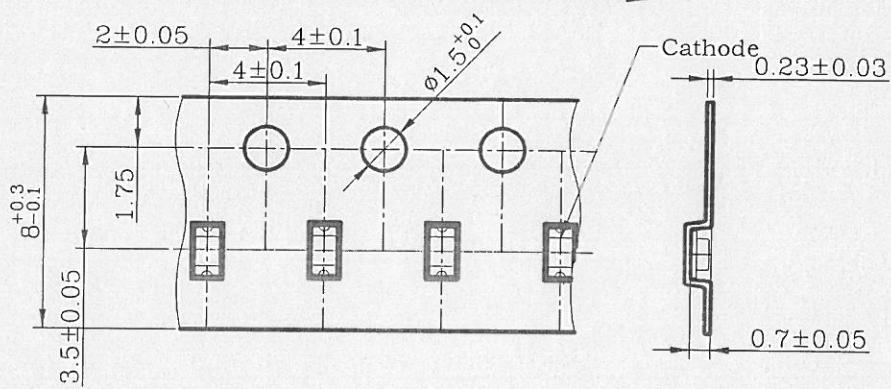
- Taping Quantity : 4000pcs
- The tolerances unless mentioned is ± 0.1 mm, Angle $\pm 0.5^\circ$, Unit : mm.

- Package Dimensions Of Tape And Reel

Progressive direction

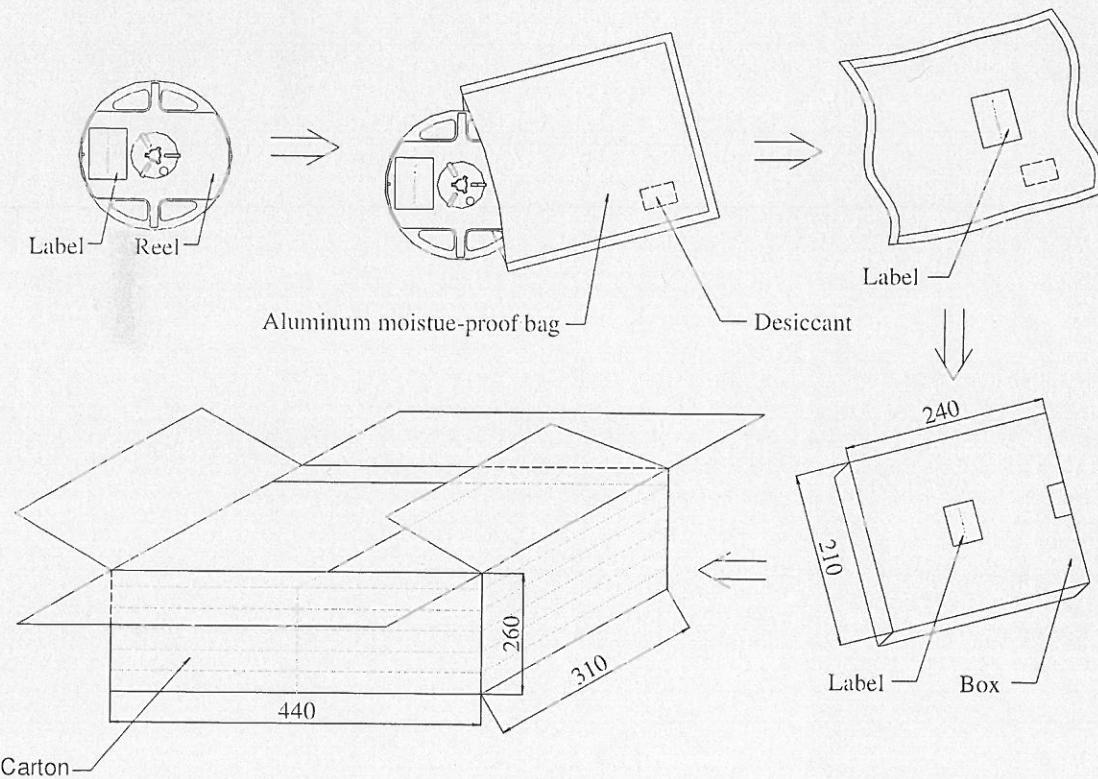


Polarity



Notes: All dimensions are in millimeters.

Moisture Resistant Packaging

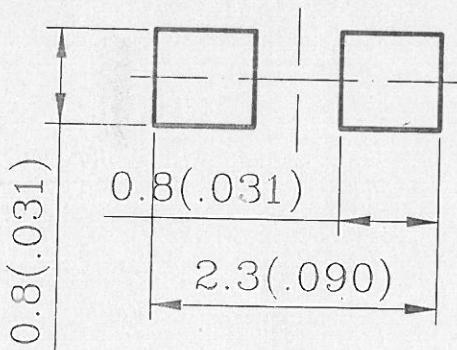


Notes : One reel in a bag, six bag in a inner box, six inner boxes in a carton. Unit : mm.

- Cleaning

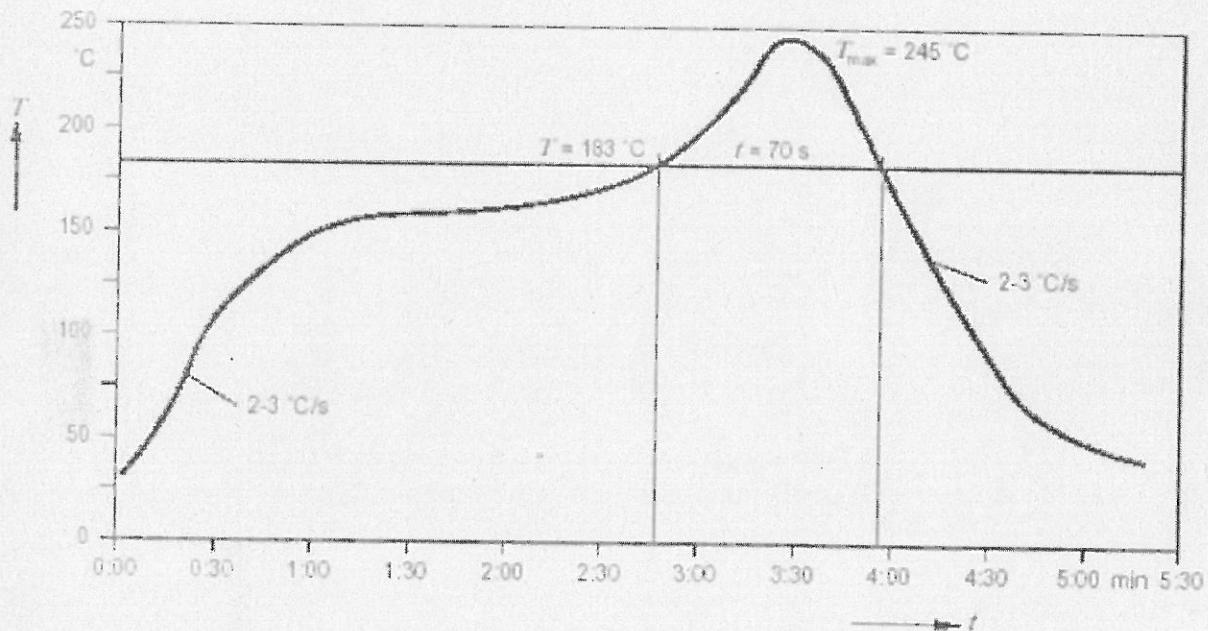
- * If cleaning is required , use the following solutions for less than 1 minute and less than 40°C.
- * Appropriate chemicals: Ethyl alcohol and isopropyl alcohol.
- * Effect of ultrasonic cleaning on the LED resin body differs depending on such factors as the oscillator output, size of PCB and LED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

- Suggest Soldering Pad Dimensions

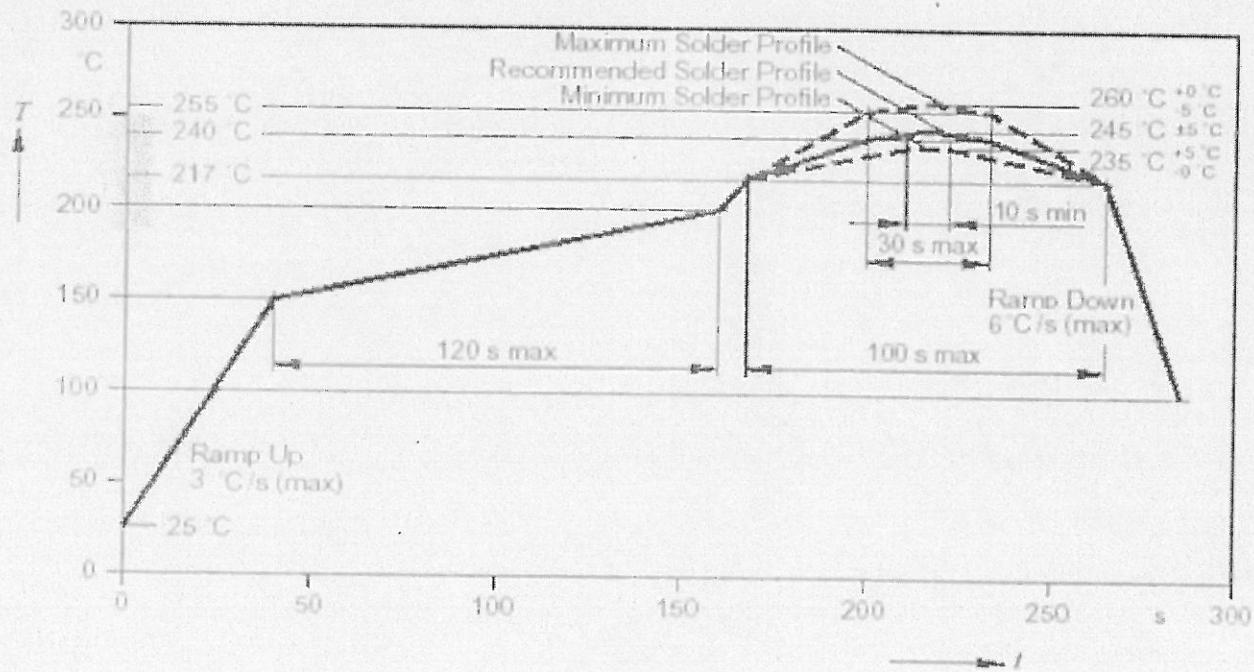


Direction of PWB camber
and go to reflow furnace

- Suggest Sn/Pb IR Reflow Soldering Profile Condition:



- Suggest Pb-Free IR Reflow Soldering Profile Condition:





SURFACE MOUNT DEVICE LED

Part No. : L-C191LGCT

REV:C / 3

● 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 :

Do not open moisture proof bag before the products are ready to use.

Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.

After opening the package: The LED's floor life is 1 year under 30°C or less and 60% RH or less. If unused LEDs remain, it should be stored in moisture proof packages.

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±5°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 touch LED lens when soldering.



SURFACE MOUNT DEVICE LED

Part No. : L-C191LGCT

REV:C / 3

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) :

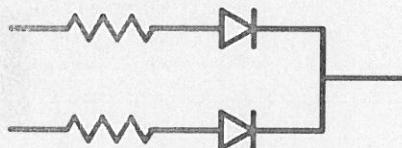
- 1、Iron Tip Temp:350°C Max.
- 2、Soldering Iron:30w Max.
- 3、Soldering Time:3 Sec. Max. One Time.

For Dip Soldering :

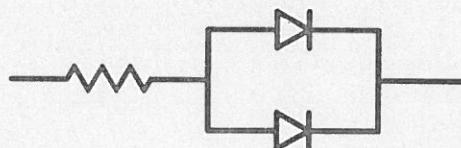
- 1、Pre-Heat Temp:150°C Max. 120 Sec. Max.
- 2、Bath Temp:265°C Max.
- 3、Dip Time:5 Sec. Max.

5. Drive Method

Circuit model A



Circuit model B



(A)Recommended circuit.

(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-C191LGCT

REV:C / 3

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 Storage	IR-Reflow In-Board, 2 Times Ta= $65\pm 5^{\circ}\text{C}$, RH= 90~95% *Test Time= 1000HRS±2HRS	MIL-STD-202F:103B(1980) JIS C 7021:B-11(1982)
	High Temperature Storage	Ta= $105\pm 5^{\circ}\text{C}$ Test Time= 1000HRS (-24HRS,72HRS)	MIL-STD-883D:1008 (1991) JIS C 7021:B-10 (1982)
	Low Temperature Storage	Ta= $-55\pm 5^{\circ}\text{C}$ *Test Time=1000HRS (-24HRS,72H RS)	JIS C 7021:B-12 (1982)
Environmental Test	Temperature Cycling	105±5 °C -55±5 °C 10mins 10mins 100 Cycles	MIL-STD-202F:107D (1980) MIL-STD-750D:105I(1995) MIL-STD-883D:1010 (1991) JIS C 7021:A-4(1982)
	Thermal Shock	IR-Reflow In-Board, 2 Times 105±5 °C -55°C±5 °C 10mins 10mins 100 Cycles	MIL-STD-202F:107D(1980) MIL-STD-750D:105I(1995) MIL-STD-883D:1011 (1991)
	Solder Resistance	Tsol= $260 \pm 5^{\circ}\text{C}$ Dwell Time= $10 \pm 1\text{sec}$	MIL-STD-202F:210A(1980) MIL-STD-750D:2031(1995) JIS C 7021:A-1(1982)
	Solder ability	Tsol= $235 \pm 5^{\circ}\text{C}$ Immersion time $2 \pm 0.5 \text{ sec}$ Immersion rate $25 \pm 2.5 \text{ mm/sec}$ Coverage $\geq 95\%$ 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.



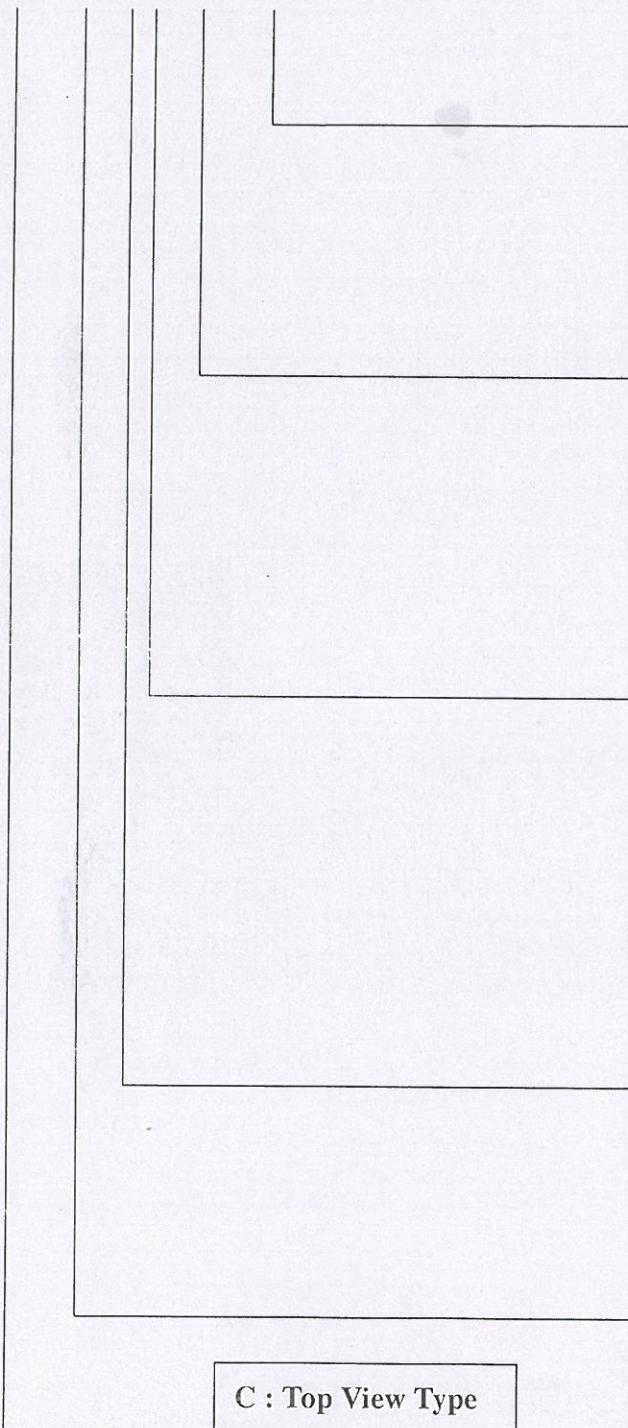
SURFACE MOUNT DEVICE LED

Part No. : L-C191LGCT

REV:C / 3

PART NO. SYSTEM :

L - C 1 9 1 X C X X - X X X X



C : Top View Type
S : Side View Type

XXXX : Special specification for customer

T : Taping for 7 inch reel
TC : Taping for 13 inch reel
TH : IV half binning
TP : Wavelength binning

Lens color
C : Water Clear
W : White Diffused
T : Color Transparent
D : Color Diffused

G : Gap 570nm Green
Y : GaAsP 585 nm Yellow
E : GaAsP 620 nm Orange
SR : GaAlAs 634 nm Red
KG : AlInGap 570nm Super Green
KY : AlInGap 590nm Super Yellow
KF : AlInGap 605nm Super Amber
KR : AlInGap 630 nm Super Red
LB : InGaN 470nm Blue
LG: InGaN 525nm Green

0 : Single chip
1/2 : Super thin single chip
5/6 : Dual chip
F : Three chip(Full color)

150 : 1206 1.1T Type
170 : 0805 0.8T Type
191 : 0603 0.6T Type
192 : 0603 0.4T Type
110 : 1206 1.0T Type