



**PARA LIGHT ELECTRONICS CO., LTD.**

11F, No.8, Jiankang Rd,Zhonghe Dist,New Taipei City 253, Taiwan

Tel: 886-2-2225-3733

Fax: 886-2-2225-4800

E-mail: [para@para.com.tw](mailto:para@para.com.tw)

[http:// www.paralighttaiwan.com](http://www.paralighttaiwan.com)

**DATA SHEET**

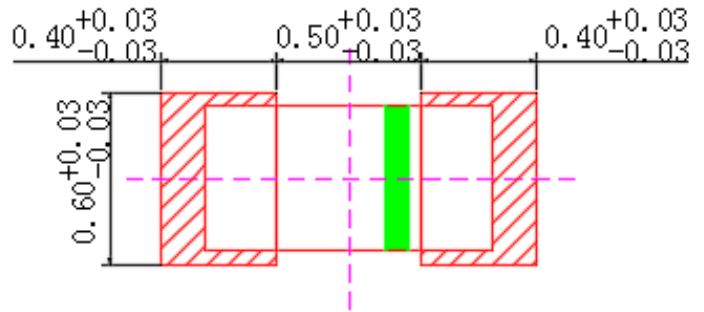
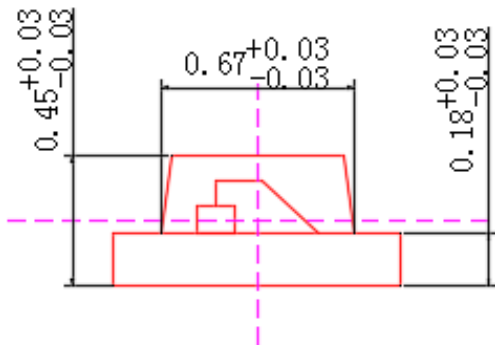
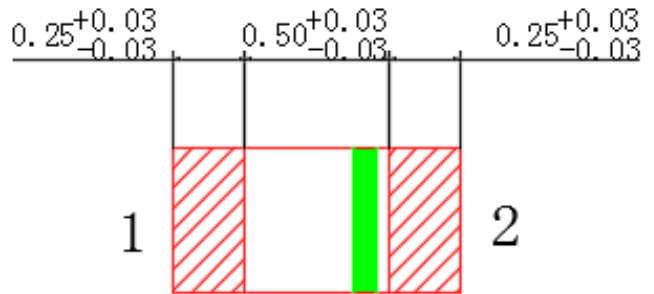
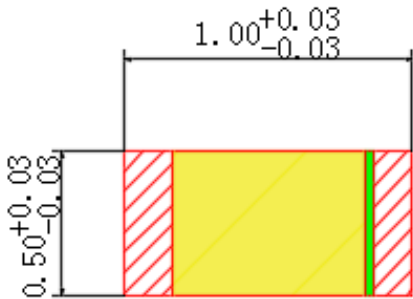
**PART NO. : L-C292WDT-XD**

**REV : A / 0**

CUSTOMER'S APPROVAL : \_\_\_\_\_

DCC : \_\_\_\_\_

PACKAGE DIMENSIONS



Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.1$ mm unless otherwise noted.
3. Specifications are subject to change without notice.

**FEATURES**

- \* 1.0x0.5x0.45mm SMD LED
- \* TOP view LED
- \* Wide viewing angle

**CHIP MATERIALS**

- \* Dice Material : InGaN
- \* Light Color : WHITE
- \* Lens Color : Yellow Fluorescent

**ABSOLUTE MAXIMUM RATING : ( Ta = 25°C )**

SYMBOL	PARAMETER	Rating	UNIT
PD	Power Dissipation	100	mW
If	Forward Current	20	mA
Ifp	Peak Forward Current (1/10 duty cycle 0.1ms)	100	mA
VR	Reverse Voltage	5	V
Topr	Operating Temperature Range	-40 ~ + 85	°C
Tstg	Storage emperatur Range	-40 ~ + 85	°C

**ELECTRO-OPTICAL CHARACTERISTICS : ( Ta = 25°C )**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensit	Iv	130		350	mcd	IF=5mA
Viewing Angle	2θ1/2	---	120	---	deg	IF=5mA
Chromaticity Coordinates	X	---	0.27	---		IF=5mA
	Y	---	0.28	---		IF=5mA
Forward Voltage	VF	2.6		3.2	V	IF=5mA
Reverse Current	IR			10	μA	VR=5V

Typical Electro-Optical Characteristics Curves

25°C Ambient Temperature Unless Otherwise Noted

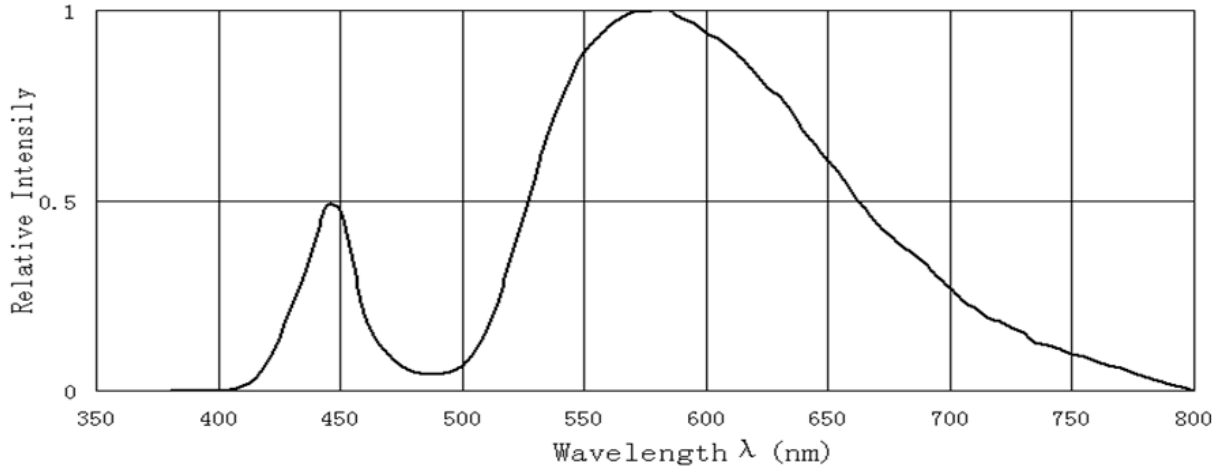


Fig. 1 Relative Intensity vs. Wavelength

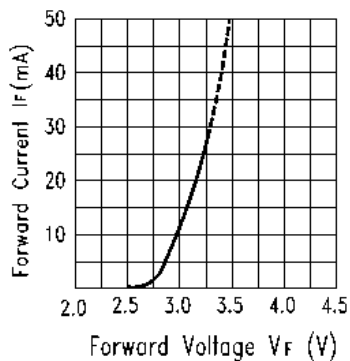


Fig. 2 Forward Current vs. Forward Voltage

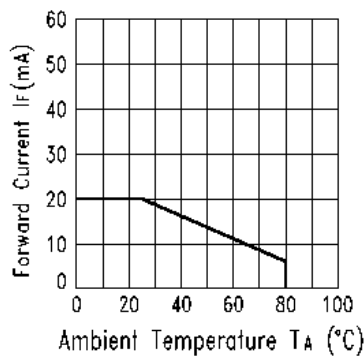


Fig. 3 Forward Current Derating Curve

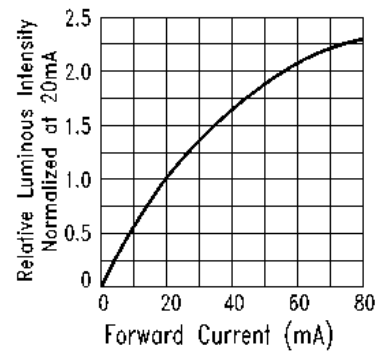


Fig. 4 Relative Luminous Intensity vs. Forward Current

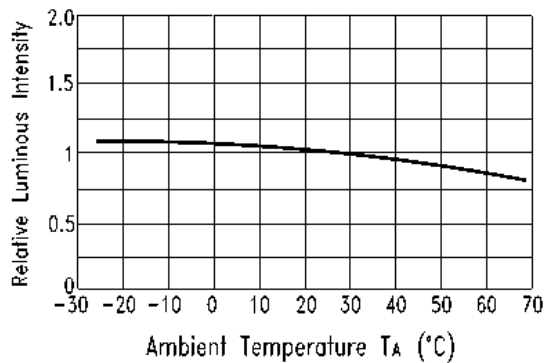


Fig. 5 Luminous Intensity vs. Ambient Temperature

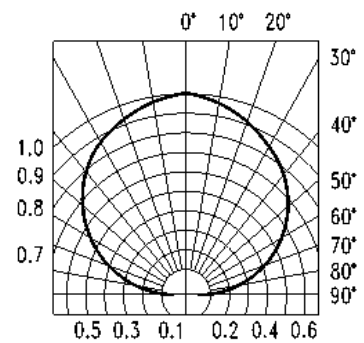


Fig. 6 Spatial Distribution

**IV Rank**

Rank		IV		Condition
		MIN	MAX	
O	O1	130	160	IF=5mA
	O2	160	200	
p	p1	200	250	
	p2	250	300	
q	q1	300	350	

Note:Tolerance of Luminous Intensity:±15%

**VF Rank**

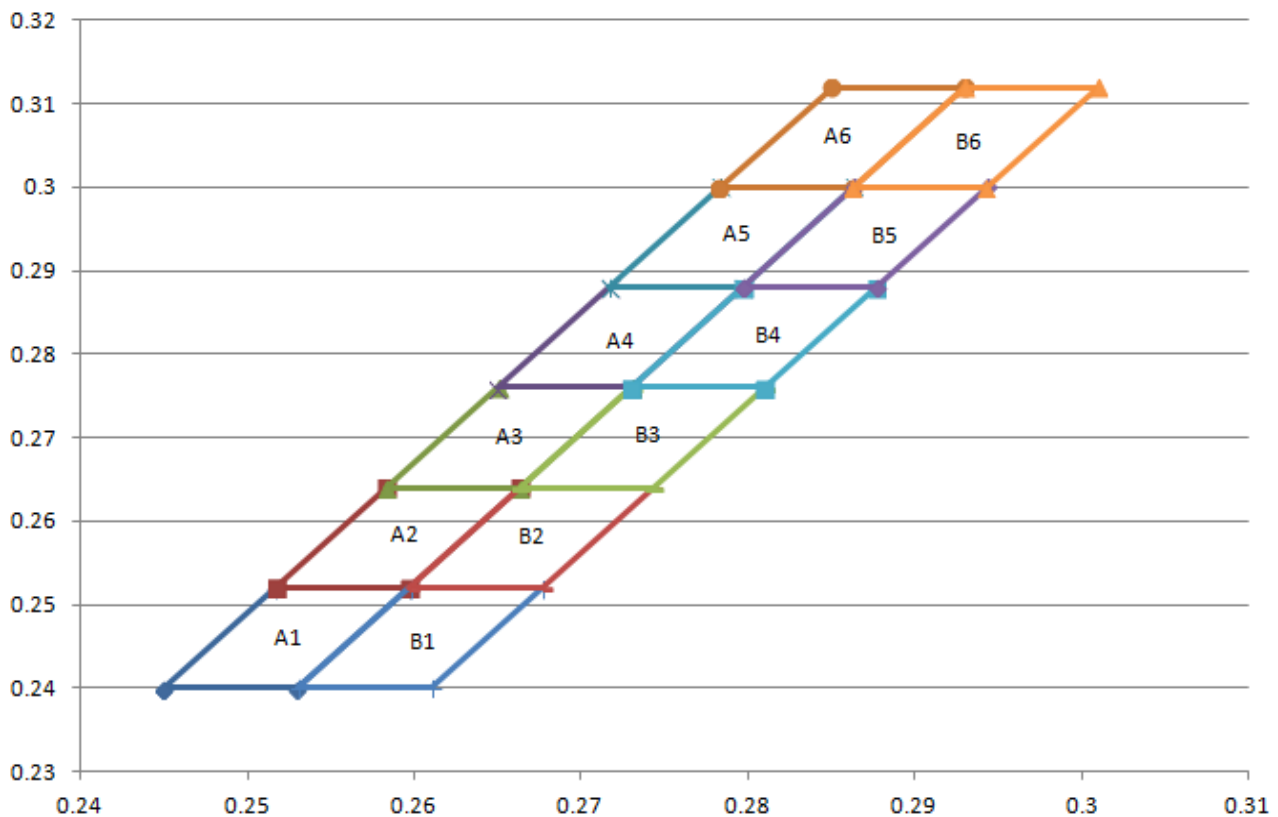
Rank		VF		Condition
		MIN	MAX	
b	b2	2.6	2.7	IF=5mA
	b3	2.7	2.8	
	b4	2.8	2.9	
	b5	2.9	3.0	
c	c1	3.0	3.1	
	c2	3.1	3.2	

Note:Tolerance of Forward Voltage:±0.05V.

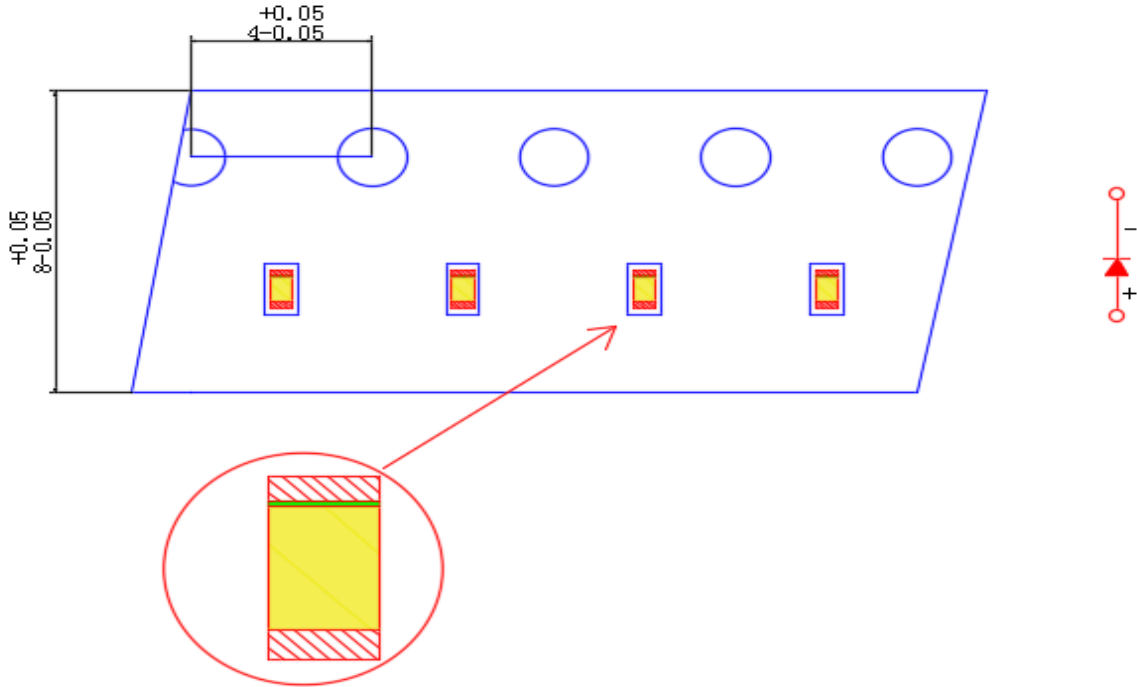
**X Y Rank**

	X1Y1	X1Y2	X3Y3	X4Y4		X1Y1	X1Y2	X3Y3	X4Y4
A1	0.245	0.2517	0.2597	0.253	B1	0.253	0.2597	0.2677	0.261
	0.24	0.252	0.252	0.24		0.24	0.252	0.252	0.24
A2	0.2517	0.2583	0.2663	0.2597	B2	0.2597	0.2663	0.2743	0.2677
	0.252	0.264	0.264	0.252		0.252	0.264	0.264	0.252
A3	0.2583	0.265	0.273	0.2663	B3	0.2663	0.273	0.281	0.2743
	0.264	0.276	0.276	0.264		0.264	0.276	0.276	0.264
A4	0.265	0.2717	0.2797	0.273	B4	0.273	0.2797	0.2877	0.281
	0.276	0.288	0.288	0.276		0.276	0.288	0.288	0.276
A5	0.2717	0.2783	0.2863	0.2797	B5	0.2797	0.2863	0.2943	0.2877
	0.288	0.3	0.3	0.288		0.288	0.3	0.3	0.288
A6	0.2783	0.285	0.293	0.2863	B6	0.2863	0.293	0.301	0.2943
	0.3	0.312	0.312	0.3		0.3	0.312	0.312	0.3

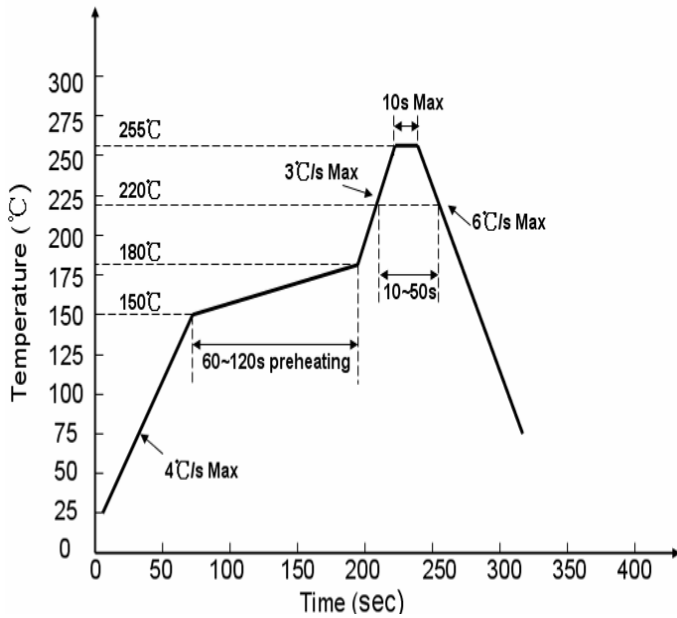
Measurement of Color coordinates : +/- 0.005



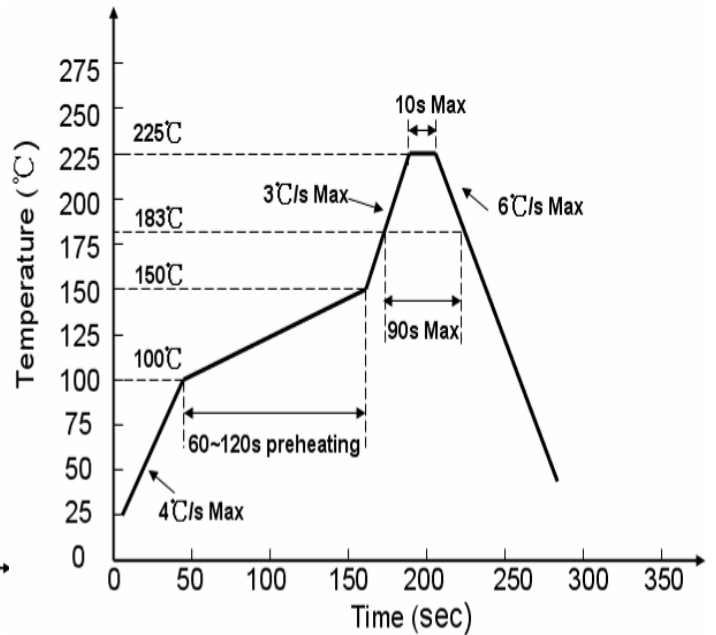
**Tape specifications** (Units:mm)



**Soldering Profile**



Free Lead process



Lead process



1.0x0.5x0.45mm SMD LED

L-C292WDT-XD

REV:A / 0

◆ CAUTIONS:

**1.Storage**

• In order to avoid the absorption of moisture, it is recommended to store in the dry box (or desiccator) with a desiccant. Otherwise, to store them in the following environment is recommended.

Temperature: 5°C~30°C Humidity: 60%HR max.

• Attention after opened

However LED is corresponded SMD, when LED be soldered dip, interfacial separation may affect The light transmission efficiency, causing the light intensity to drop. Attention in followed. a. After opened and mounted, the soldering shall be quickly. b. Keeping of a fraction Temperature: 5°C~40°C Humidity: less than 30%

• In case or more than 1 week passed after opening or change color of indicator on desiccant components shall be dried 10-12hr. at 60°C±3°C.

• In case of supposed the components is humid, shall not be dried dip-solder just before. 100Hr at 80°C±3°C or 12Hr at 100°C±3°C

**2.ESD ( Electrostatic Discharge)**

Static Electricity or power surge will damage the LED.

The following procedures may decrease the possibility of ESD damage.

- All production machinery and test instruments must be electrically grounded.
- Use a conductive wrist band or anti-electrostatic glove when handling these LEDs.
- Maintain a humidity level of 50% or higher in production areas.
- Use anti-static packaging for transport and storage.