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 http:// www.paralighttaiwan.com

DATA SHEET

PART NO. : LT2835WDT-NW1-BKS

REV : A / 0

CUSTOMER'S APPROVAL : _____ DCC : _____

Features

- P-LCC-2 package.
- Fluorescence Type
- High Luminous Intensity
- High Efficiency
- Pb-free.
- The product itself will remain within RoHS compliant version.

Descriptions

- Due to the package design, GT2835 has wideviewing angle, low power consumption and whiteLEDs are devices which are materialized bycombing Blue LEDs and special phosphors. Thisfeature makes the LED ideal for light guideapplication.

Applications

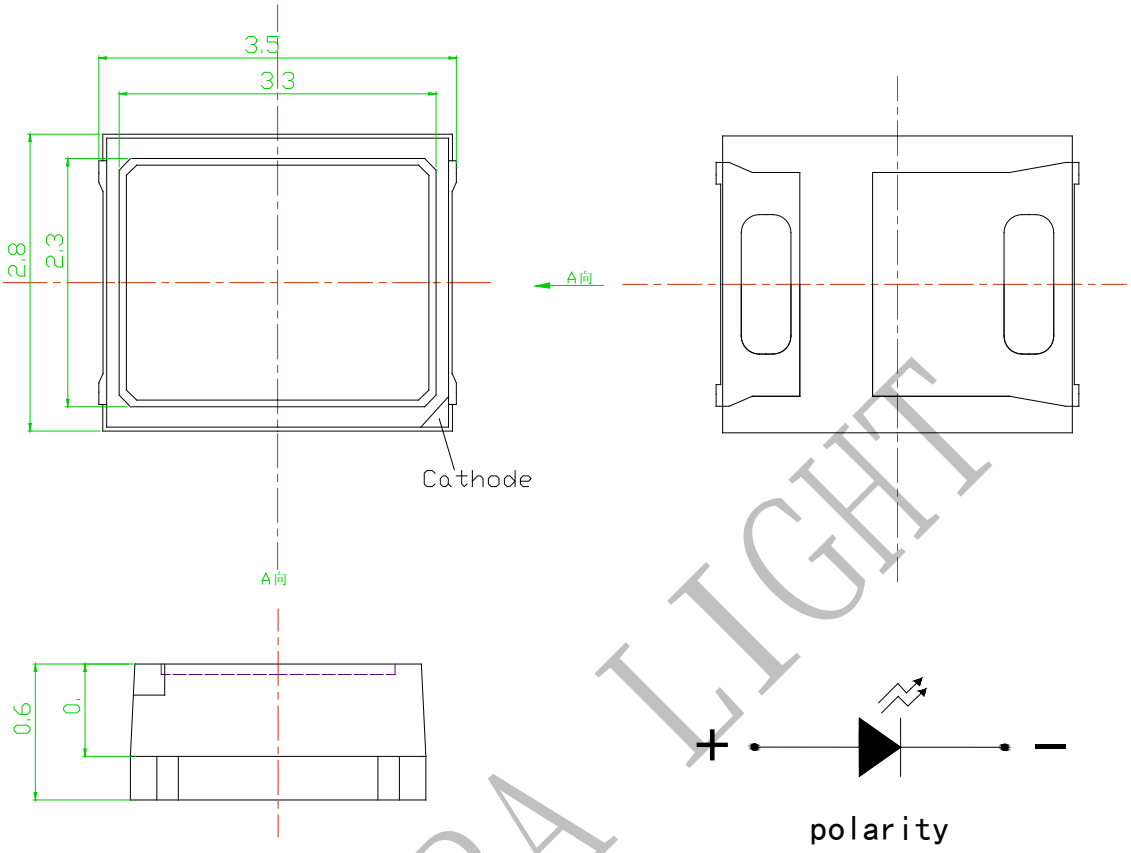
- TV back lighting
- Decorative and Entertainment Lighting.
- Illuminations.

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

● Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.254mm (0.01”) unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change with notice.

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	60	mA
Peak Forward Current*	I_{FP}	80	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	200	mW
Operation Temperature	T_{opr}	-40 ~ + 85	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T_{sol}	Reflow Soldering : 260 ℃ for 5 sec. Hand Soldering : 350 ℃ for 3 sec	

*pulse width <=0.1msec duty <=1/10

Typical Electrical & Optical Characteristics (Ta = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F =60mA	2.8	---	3.6	V
Reverse Current	I_R	V_R =5V	---	---	10	uA
Colour Temperature	TC	I_F =60mA	1700	1800	2000	k
Luminous Flux	Φv	I_F =60mA	18	---	24	lm
50% Power Angle	2 □	I_F =60mA	---	120	---	deg

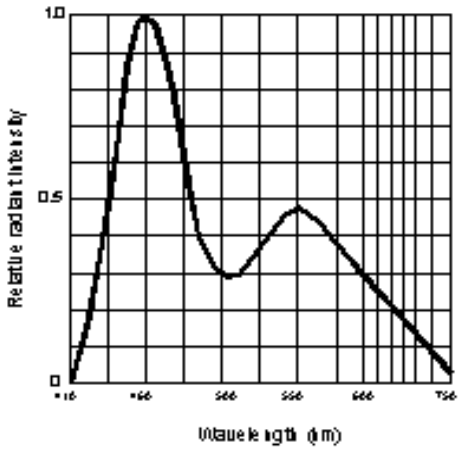
1) Tolerance of measurement of luminous intensity is ±15%.

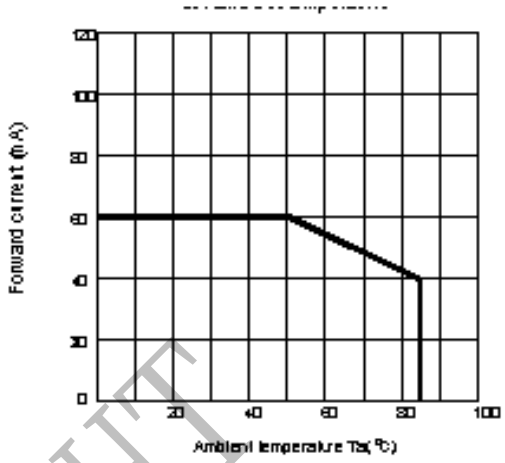
2) Tolerance of measurement of colour temperature is ±100K.

3) Tolerance of measurement of Vf is ±0.05 V.

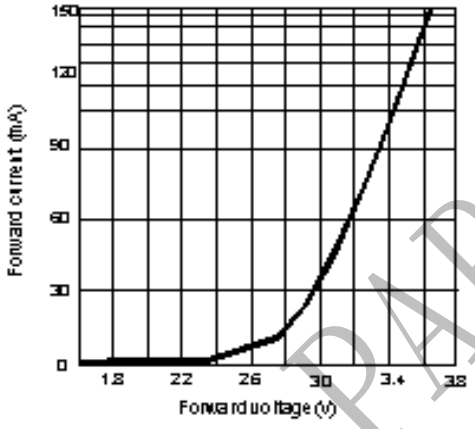
● **Electrical and optical characteristics(Ta=25** ℃)

●**Typical electro-optical characteristics curves**

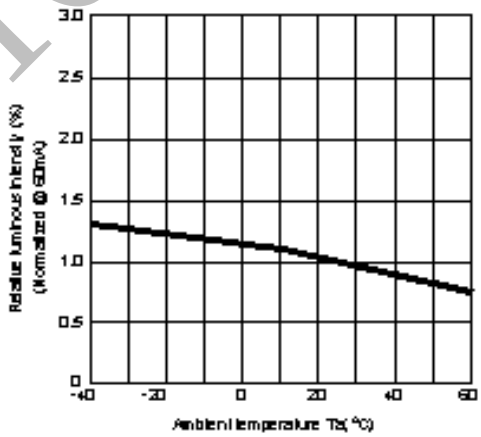




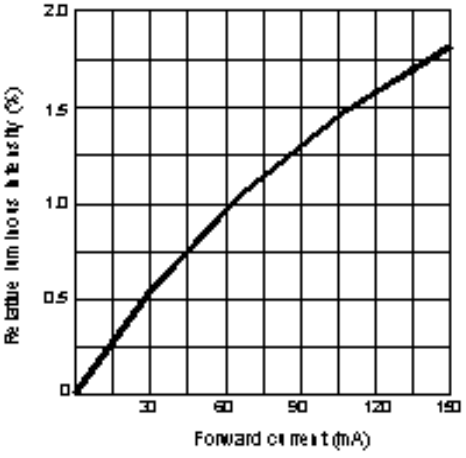
Forward current vs. forward voltage (Ta=25℃)



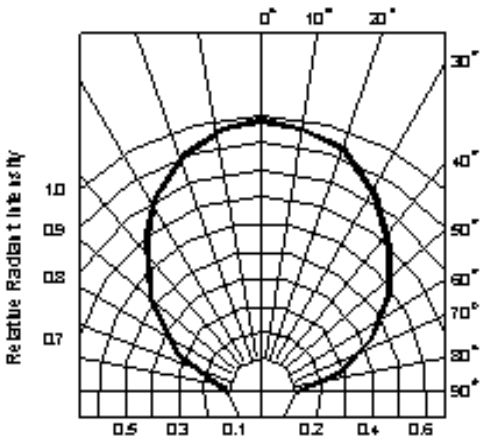
Luminous intensity vs. ambient temperature



Relative luminous intensity vs. forward current



Radiation diagram



●VF CODE

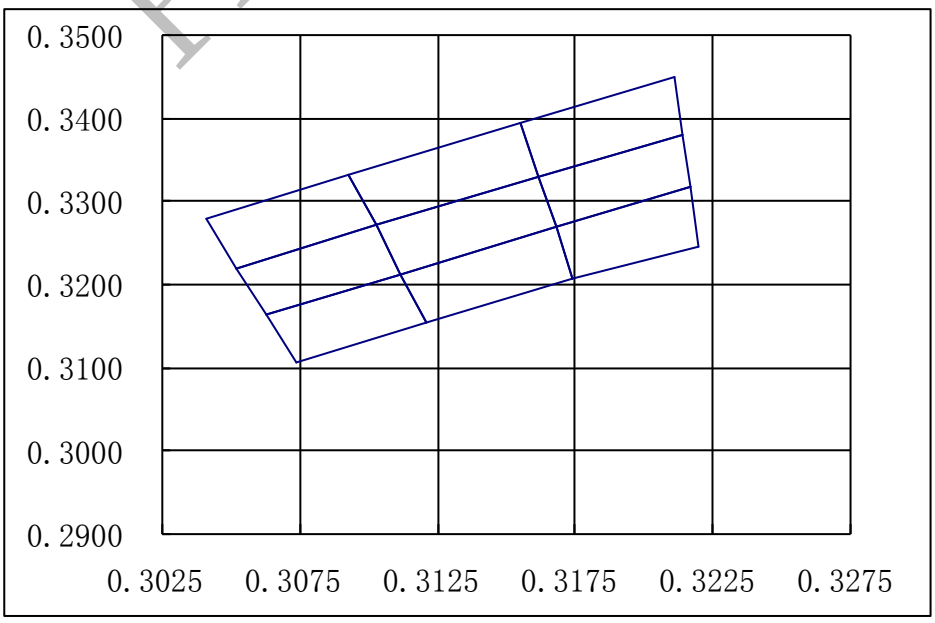
BIN.	MIN (V)	MAX(V)
1	2.4	2.6
2	2.6	2.8
3	2.8	3.0
4	3.0	3.2
5	3.2	3.4
6	3.4	3.6

● Φv CODE

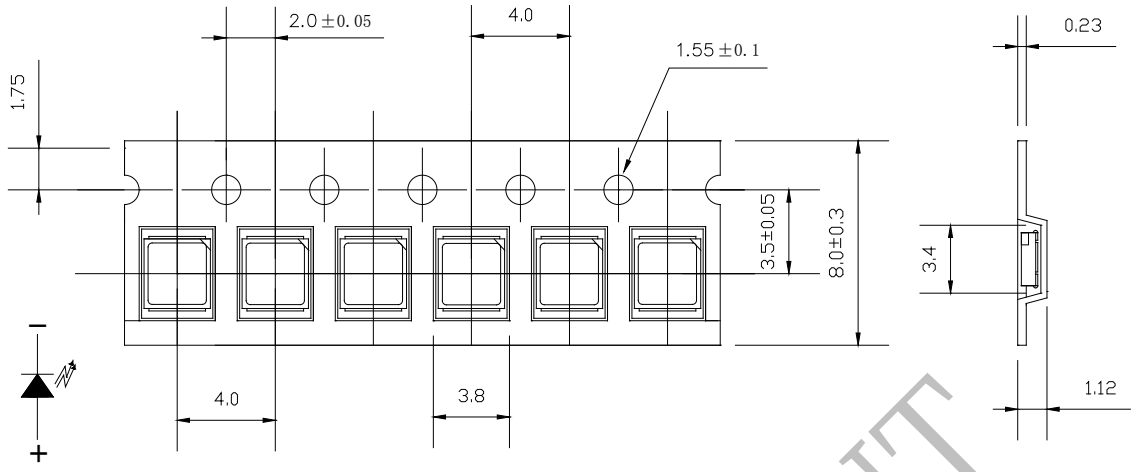
BIN.	MIN (lm)	MAX(lm)
A	21	23

● C.I.E CODE

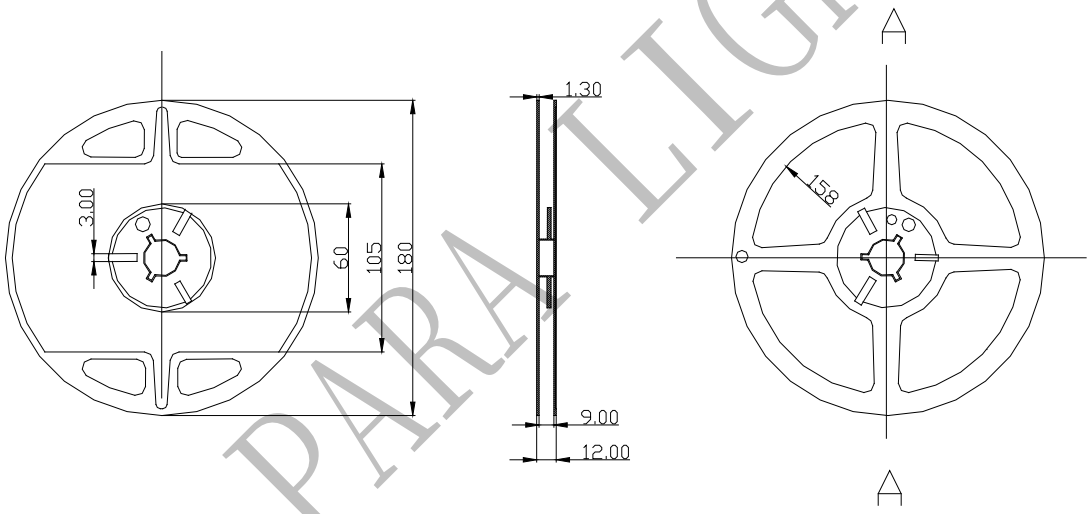
Bin.	x	y	x	y	x	y	x	y
CO4	0.3174	0.3207	0.3168	0.3269	0.3217	0.3318	0.3220	0.3247
CO5	0.3168	0.3269	0.3162	0.3331	0.3214	0.3380	0.3217	0.3318
CO6	0.3162	0.3331	0.3155	0.3396	0.3211	0.3451	0.3214	0.3380
CE4	0.3121	0.3155	0.3112	0.3213	0.3168	0.3269	0.3174	0.3207
CE5	0.3112	0.3213	0.3103	0.3272	0.3162	0.3331	0.3168	0.3269
CE6	0.3103	0.3272	0.3093	0.3333	0.3155	0.3396	0.3162	0.3331
CX4	0.3074	0.3107	0.3063	0.3164	0.3112	0.3213	0.3121	0.3155
CX5	0.3063	0.3164	0.3052	0.3220	0.3103	0.3272	0.3112	0.3213
CX6	0.3052	0.3220	0.3041	0.3279	0.3093	0.3333	0.3103	0.3272



● Packaging

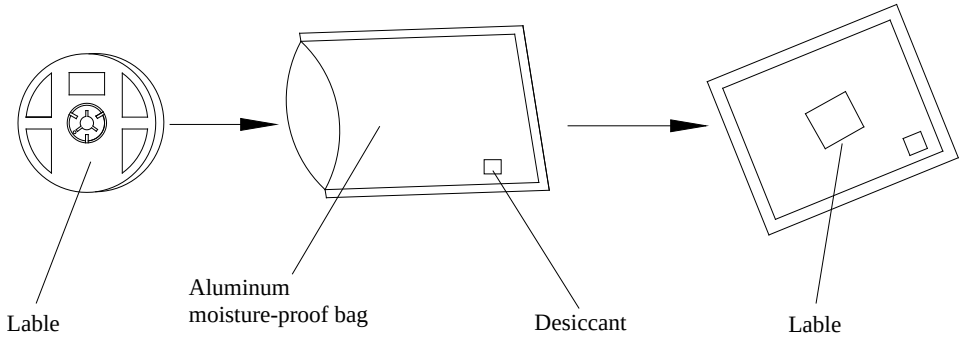


Note: Tolerance unless mentioned is ±0.1mm; Unit = mm



Carrier Tape Dimensions: Loaded Quantity 4000 pcs Per Reel.

● Moisture Resistant Packaging



● Reliability Test Items and Conditions

The reliability of products shall be satisfied with items listed below.
Confidence level：90%.
LTPD：10%.

Items	Test Condition	Test Hours/ Cycles	Quantity	Ac/Re
Reflow Soldering	Temp. : 260 ℃ Min. 5sec.	3times	22 PCS	0/1
Temperature Cycle	H : +85 ℃ 15min. ∫ 5 min L : -40℃ 15min.	300 Cycles	22PCS	0/1
Thermal Shock	H : +100 ℃ 5min. ∫ 10 sec L : -40℃ 5min.	100Cycles	22PCS	0/1
High Temperature Storage	Temp. : 100 ℃	1000Hrs	22PCS	0/1
Low Temperature Storage	Temp. : -40 ℃	1000Hrs	22PCS	0/1
Dc Life	IF =60mA	500Hrs	22PCS	0/1
High Temperature / High Humidity	85 ℃/8	500Hrs	22PCS	0/1
Drop Test	75cm	3 Times	22PCS	0/1

● Precautions for Use

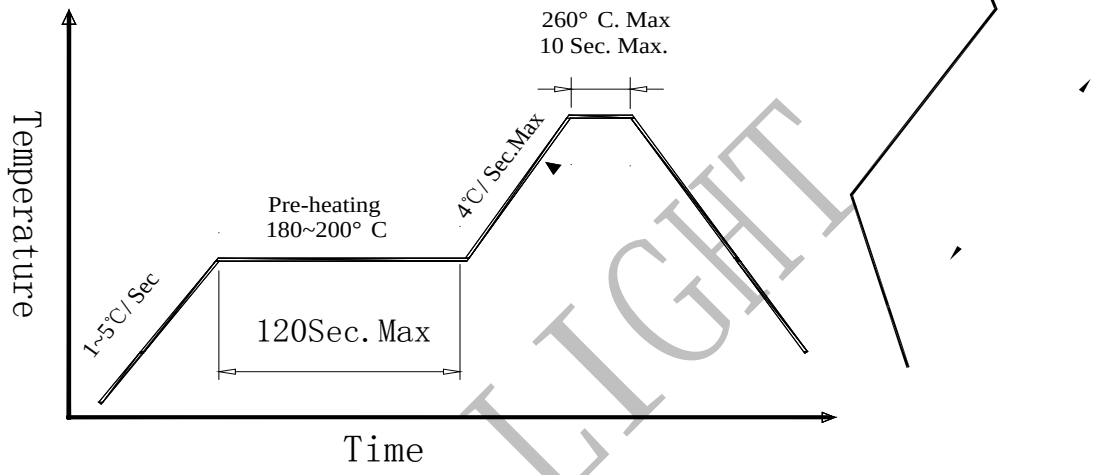
1. Over-current-proof
Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).
2. Storage
2.1 Do not open moisture proof bag before the products are ready to use.
2.2 Before opening the package: The LEDs should be kept at 30℃ or less and 90%RH or less.
2.3 After opening the package: The LED's floor life are 168 hours under 30℃ or less and

60%RH or less. If unused LEDs remain, it should be stored in moisture proof packages.

2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded thestorage time, baking treatment should be performed using the following conditions.Baking treatment: 60±5℃ for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

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

3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350℃ for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals,and do soldering of each terminal. Be careful because the damage of the product is often started atthe time of the hand solder.

5. Repairing

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