



## SURFACE MOUNT LED

### 1.ELEMENT APPEARANCE

Model No.	Material	Lighting Color	Resin Color
RT-B3528WRET	GaN	White	Yellow Clear

### 2.ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Characteristic	Symbol	Rating	Unit
Forward direct current	IFM	30	mA
Reverse voltage	VRM	5	V
Operating temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-40 to +100	°C
Power dissipation	Pd	96	mW

### 3.ELECTRO-OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous intensity	Iv	IF=20mA		2500		mcd
Forward voltage	VF	IF=20mA		2.9	3.2	V
Reverse current	IR	VR=5V			10	µA
Viewing angle	2θ 1/2	IF=20mA		120		deg.
Color rendering	CRI	IF=20mA		75		Ra

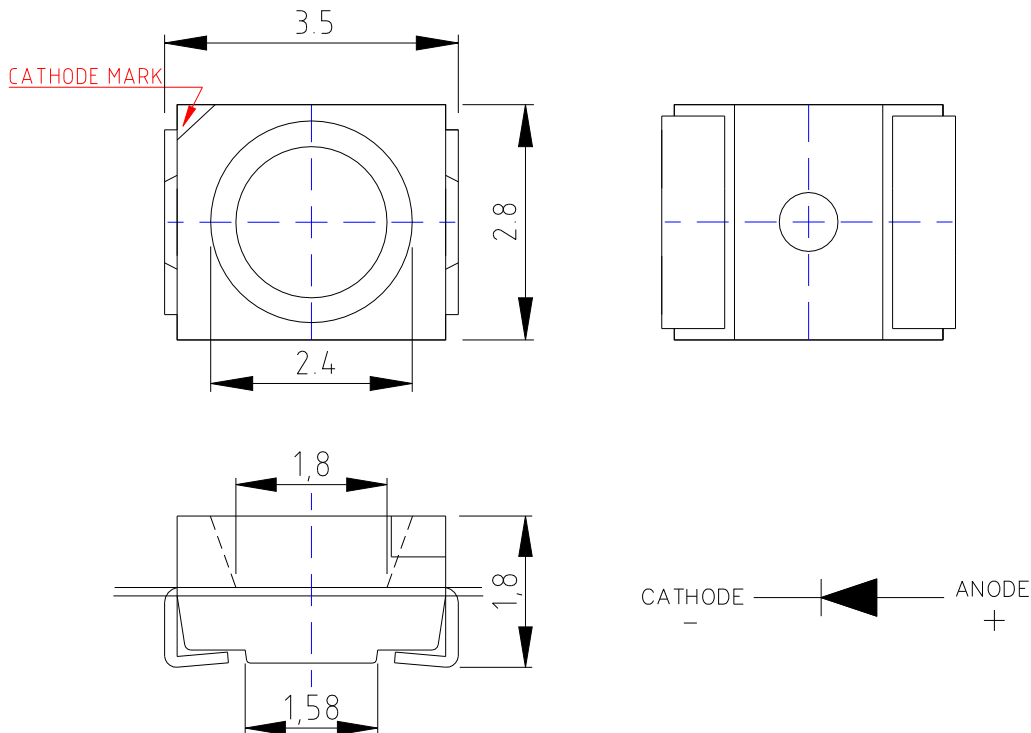
※Luminous intensity Measurement allowance is ±15%

※Forward voltage Measurement allowance is ±0.05V

※Measurement Uncertainty of the color coordinates : ±0.01



### 4.DIMENSIONS UNIT : mm TOLERANCE : ± 0.25mm





## 5.BIN

### RODAN BIN 表

VF (IF=20mA)		
BIN	MIN	MAX
v1	2.8	3.0
v2	3.0	3.2

※VF 誤差值±0.1V

Iv (IF=20mA) mcd		
BIN	MIN	MAX
A	2300	2450
B	2450	2600

※亮度誤差值±15%

### 海陸 BIN 表

VF (IF=20mA)		
BIN	MIN	MAX
G	2.8	3.0
H	3.0	3.2

※VF 誤差值±0.1V

Iv (IF=20mA) mcd		
BIN	MIN	MAX
A2	2300	2850

※亮度誤差值±15%

依據上述 VF 分 BIN 條件，海陸目前指定 **G(2.8~3.0V)/H(3.0~3.2V)**條件，出貨至海陸。  
依據上述 Iv 分 BIN 條件，海陸目前指定 **A2(2300~2850mcd)**條件，出貨至海陸。

### 現品票格式

Quantity:2000

Quelighting P/N:QLSP05W-117

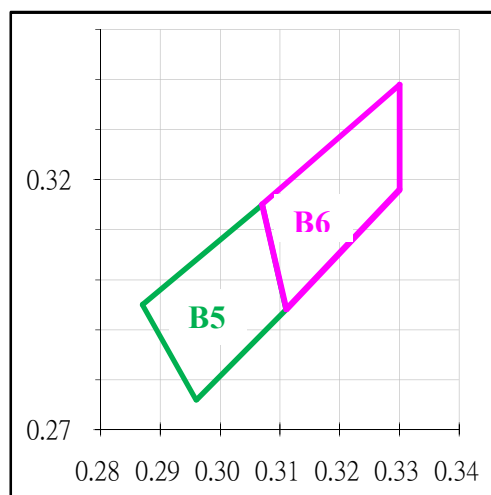
Lot number:1602-0132

Iv Bin:A2 Color Bin:B6 Vf Bin:G Date Code 20160304

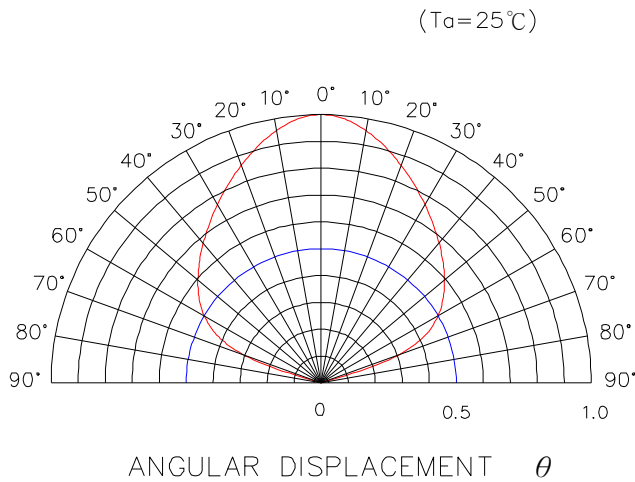
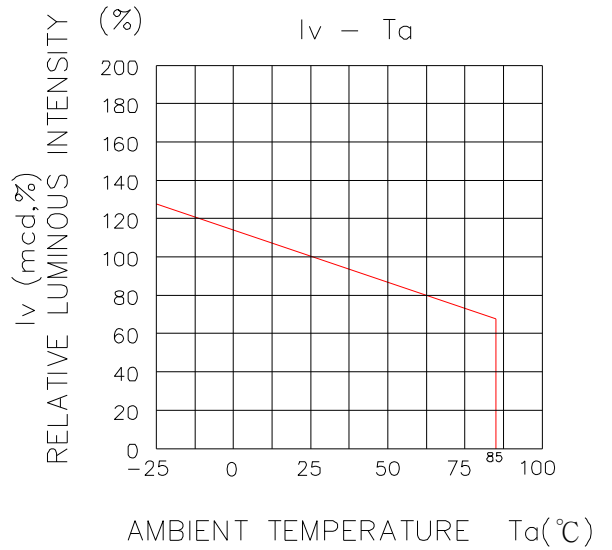
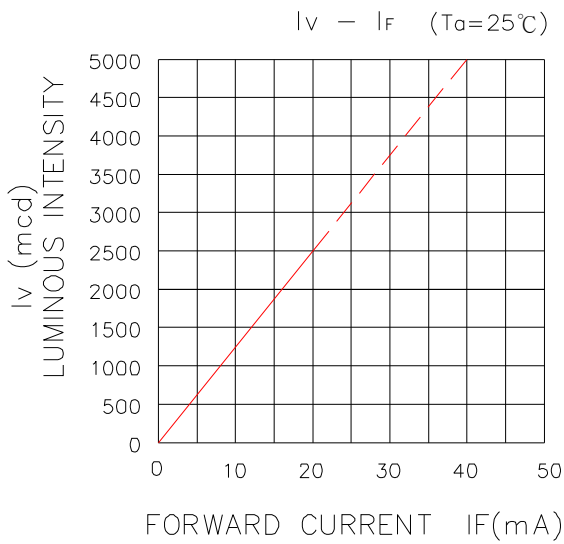
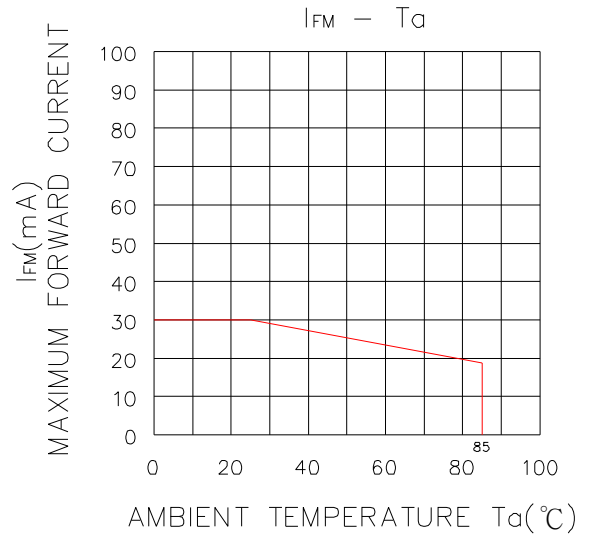
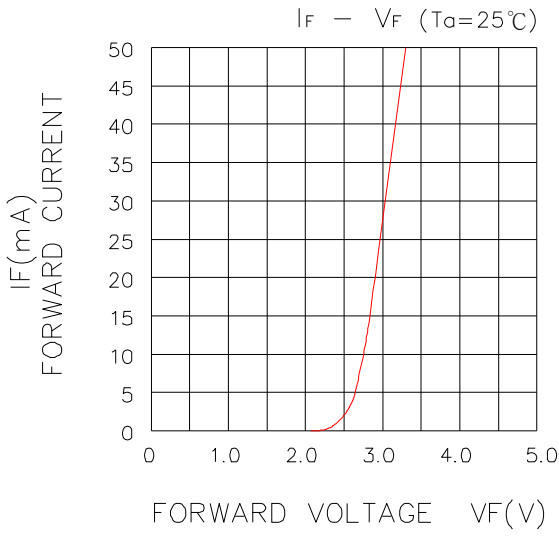
## 6.CHROMATICITY COORDINATE RANKS (IF=20mA) AT Ta=25°C

B5		B6	
X	Y	X	Y
0.2960	0.2760	0.3110	0.2940
0.2870	0.2950	0.3070	0.3150
0.3070	0.3150	0.3300	0.3390
0.3110	0.2940	0.3300	0.3180
0.2960	0.2760	0.3110	0.2940

色塊圖:



※Measurement Uncertainty of the color coordinates : ±0.01

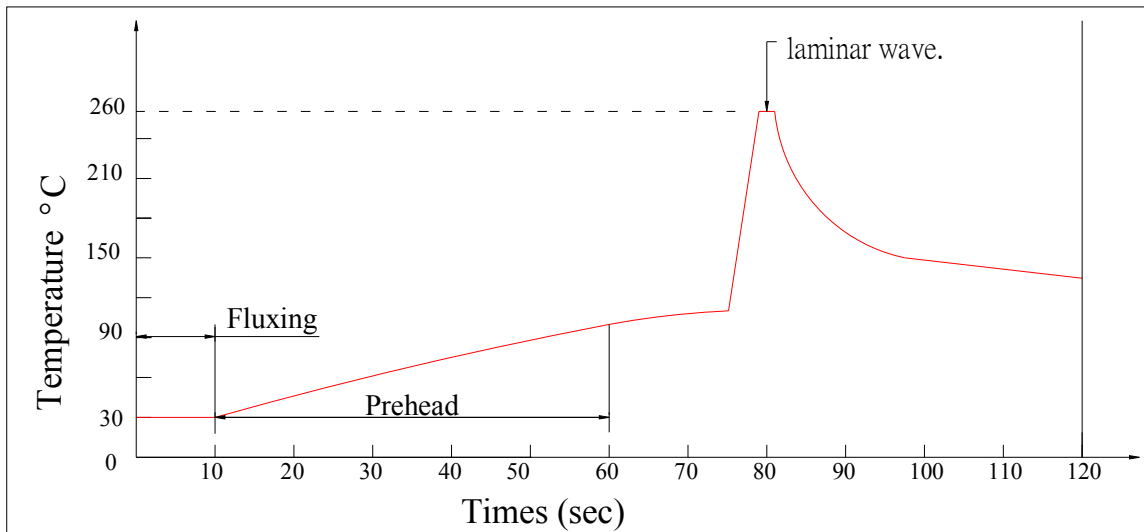


## Soldering Profile

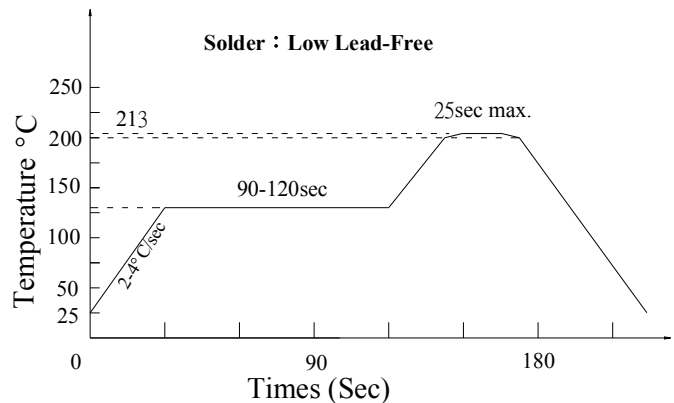
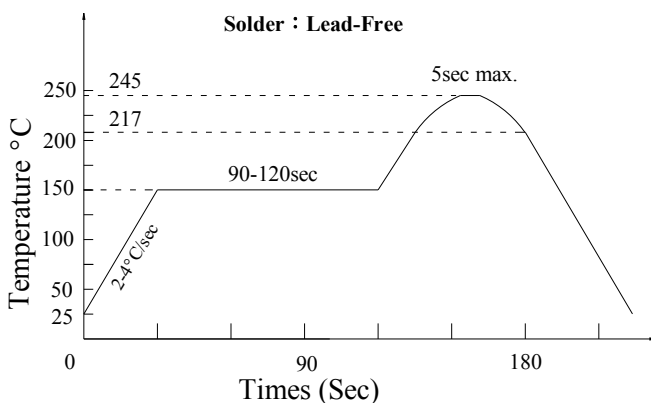
**Compliant with the following condition :**

- (1) Leaded quantity of product below 100 ppm
- (2) Lead-free process

Shape	Lead Frame Type
Hand soldering	1.Temp.at tip of iron : 300 °C max.(30W max.) 2.Soldering time : 3 sec max. 3.Distance : 3 mm MIN (from solder joint to case)
DIP soldering	1.Preheat temp : 100 °C max , 60 sec max. 2.Bath temp : 260 °C max. 3.Bath time : 3 sec max. 4.Distance : 3 mm MIN (From solder joint to case)
Recommended soldering profile	1.Preheat temp. : 100 °C , 50 sec max. 2.Peak temp. : 260 °C max. 3.Peak time : 3 sec max. 4.Duration above: 200°C , 3 sec max.



SMD Type		
Profile Feature	Solder : Lead-Free	Solder : Low Lead-Free
Preheat temp	150-180 °C , 4°C/sec max. 120 sec max.	130-170 °C , 4°C/sec max. 120 sec max.
Peak temp	245 °C max. , 5 sec max.	213 °C max. , 25 sec max.
Duration above	217 °C , 60 sec max.	200 °C , 40 sec max.





## Reliability Test Items

### CONDITIONS :

The reliability of products shall be satisfied with items listed below.

NO.	<u>Item</u>	Condition	Time / Cycle	Criteria	Ac / Re	Sample Quantity
1	Soldering Heat Test	260°C	5 sec	Open / Short	0 / 1	60 pcs
2	Thermal Shock	0°C (5min) ~100°C (5min)	20 Cycles	Open / Short	0 / 1	60 pcs
3	High Temp. Storage	100°C	1000 Hrs	Open / Short	0 / 1	60 pcs
4	Low Temp. Storage	-40°C	1000 Hrs	Open / Short	0 / 1	60 pcs
5	Temperature Cycle Test	-40°C~85°C	100 Cycles , 200Hrs	Open / Short	0 / 1	60 pcs
6	High Temp. High Humidity Test	60°C, 90% RH	1000Hrs	Open / Short	0 / 1	60 pcs
7	DC Operation Life Test	IF=20mA	1000Hrs	Power decay	≤30%	60 pcs