



# RODAN(TAIWAN)LTD.

## VISIBLE LED

承認	作成
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1.ELEMENT APPEARANCE

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DATE:2020.08.21

Model No.	Material	Lighting Color	Resin Color
RT5-7615WT-T45	InGaN	White	Water Clear

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Characteristic	Symbol	Rating	Unit
Forward direct current	IFM	60	mA
Reverse voltage	VRM	5	V
Operating temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-40 to +100	°C
Power dissipation	Pd	228	mW

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

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous intensity	Iv	IF= 20mA		16000		mcd
Forward voltage	VF	IF= 20 mA		3.0	3.8	V
Reverse current	IR	VR=5V			10	μ A
Viewing angle	2θ 1/2	IF=20 mA		40		deg.
Color temperature	CCT	IF=20 mA	5300		6500	K

\* Measurement Uncertainty of Luminous Intensity : ±15%

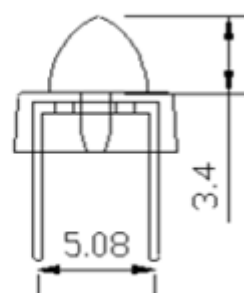
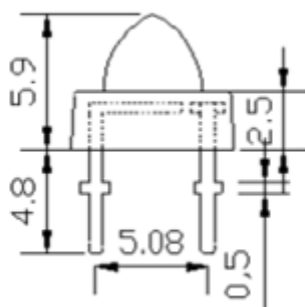
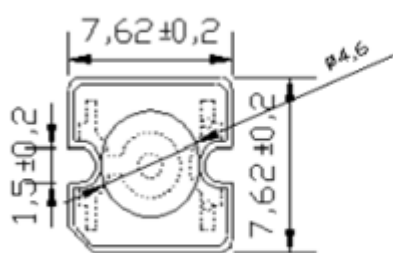
\* Measurement Uncertainty of Forward Voltage : ±0.05V

\* Emission wavelength Measurement allowance is ±0.5nm

4.DIMENSIONS UNIT : m/m

SIGN : 1.CATHODE 2.ANODE

Tolerance is ±0.2mm unless otherwise specified.



Unit : mm

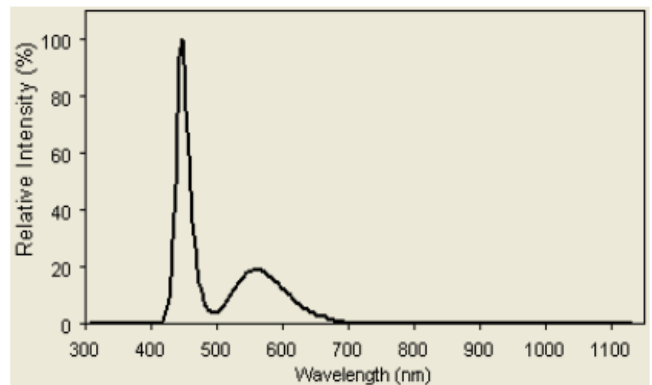
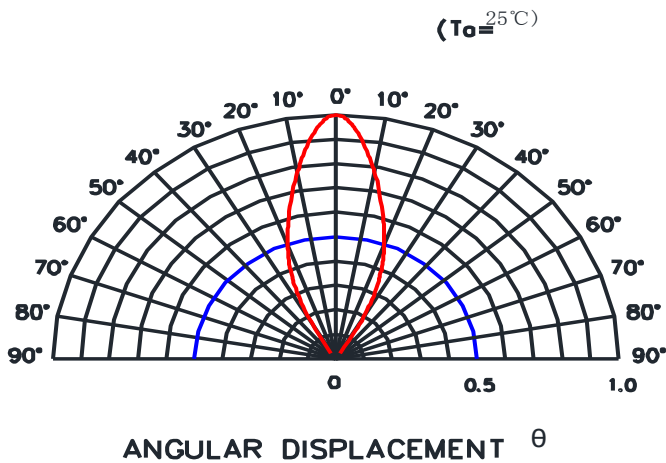
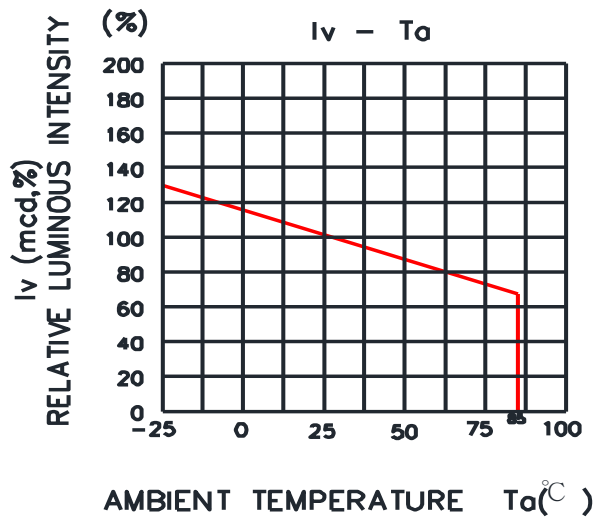
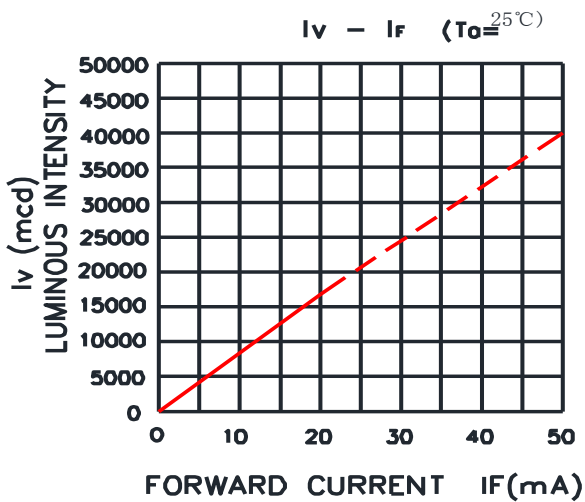
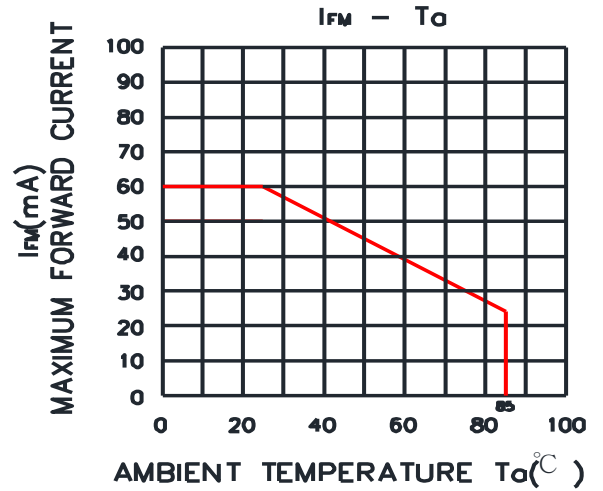
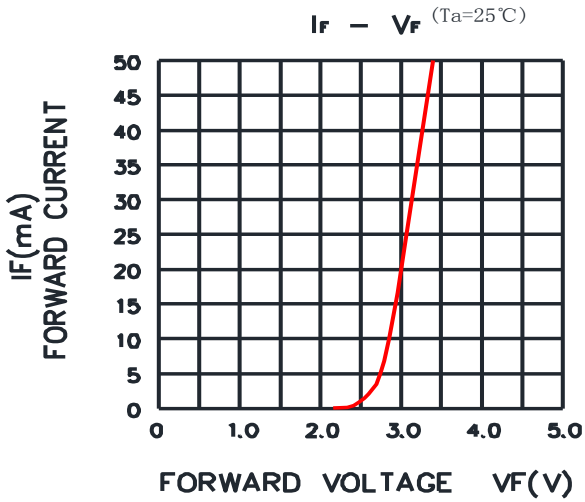
Tolerance are±0.2,unless note otherwise



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**5. BIN**

VF (V) IF=20mA		
BIN	MIN	MAX
V2	2.8	3.0
V3	3.0	3.2
V4	3.2	3.4
V5	3.4	3.6
V6	3.6	3.8

IV (mcd) IF=20mA		
BIN	MIN	MAX
BIN2	10600	13800
BIN3	13800	18000
BIN4	18000	23400

※ IV 誤差值 ±15%

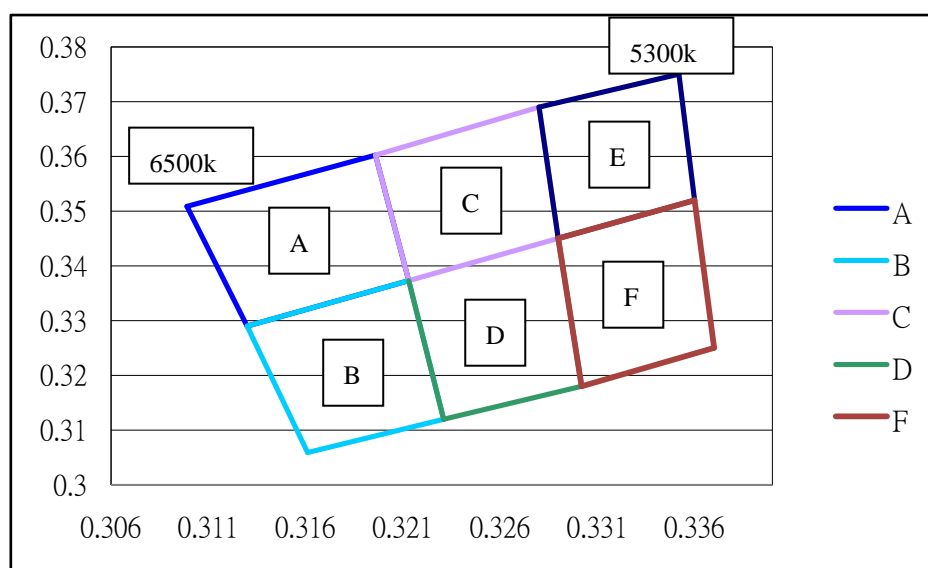
※ VF 誤差值 ±0.05V

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

5300K~6500K

A		B		C		D		E		F	
x	y	x	y	x	y	x	y	x	y	x	y
0.3099	0.3509	0.313	0.329	0.3196	0.3602	0.3213	0.3373	0.328	0.369	0.329	0.345
0.313	0.329	0.3161	0.3059	0.3213	0.3373	0.3231	0.312	0.329	0.345	0.3302	0.318
0.3213	0.3373	0.3231	0.312	0.329	0.345	0.3302	0.318	0.336	0.352	0.337	0.325
0.3196	0.3602	0.3213	0.3373	0.328	0.369	0.329	0.345	0.3352	0.375	0.336	0.352
0.3099	0.3509	0.313	0.329	0.3196	0.3602	0.329	0.345	0.328	0.369	0.329	0.345

色塊圖:





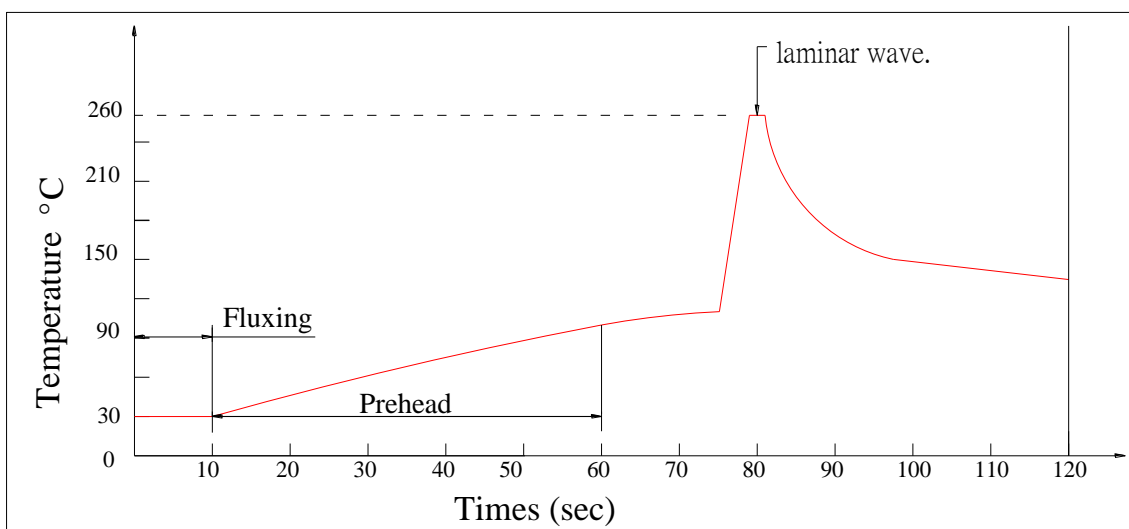
## Soldering Profile

### 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.

