



RODAN(TAIWAN)LTD.

VISIBLE LED

1.ELEMENT APPEARANCE

PAGE : 1 / 4

Model No.	Material	Lighting Color	Resin Color
RT5-5804RGBEW-A	R AlGaInP	Red	White Diffused
	G InGaN	Green	
	B GaInN / GaN	Blue	

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Characteristic	Symbol	Rating	Unit
Forward direct current	IFM	25	mA
Reverse voltage	VRM	4	V
Operating temperature	Topr	-25 to +85	°C
Storage temperature	Tstg	-25 to +100	°C
Power dissipation	Pd	R60 / G,B100	mW

Lead soldering temperature (5mm from body) 260°C for 5sec.

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

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit	
Luminous intensity	Iv	IF= 20 mA	R	360	600	mcd	
			G	600	1000		
			B	180	300		
Forward voltage	VF	IF= 20 mA	R		2.0	2.4	V
			G		3.4	4.0	
			B		3.3	4.0	
Reverse current	IR	VR=4V			10	μA	
Dominant wavelength	λ d	IF=20mA	R		624	nm	
			G		517		
			B		470		
Spectral line half width	Δ λ	IF=20mA	R		20	nm	
			G		35		
			B		30		
Viewing angle	2θ 1/2	IF=20mA		30		deg.	

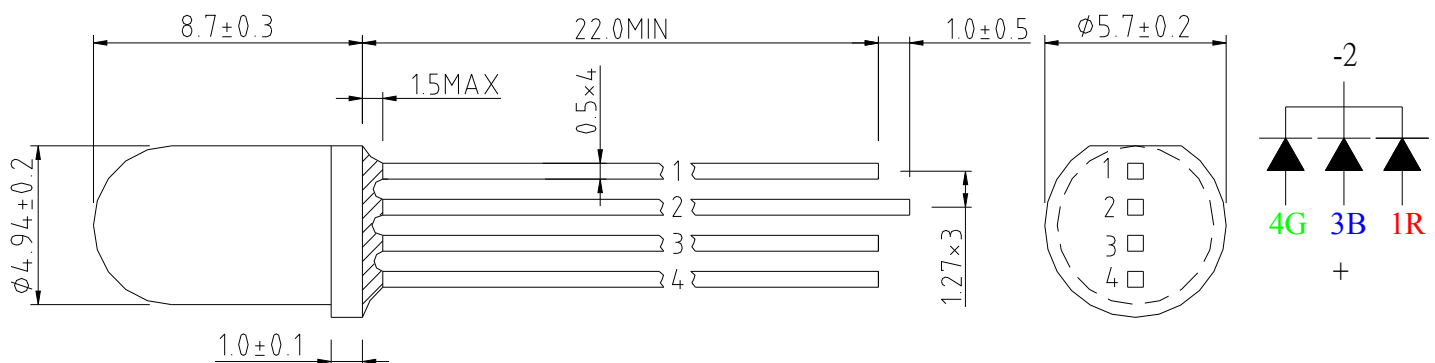
Luminous Intensity Measurement allowance is ±15%

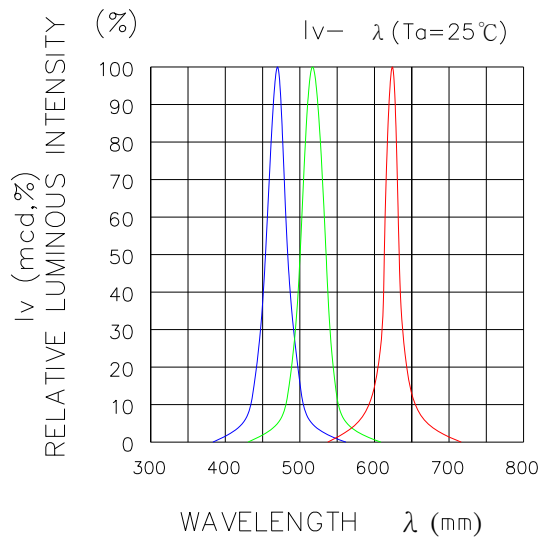
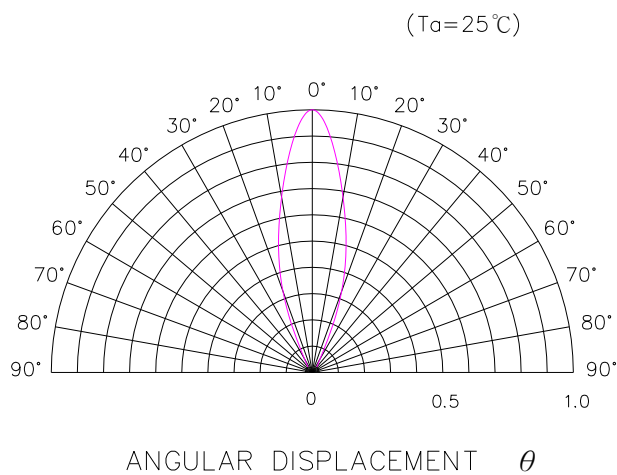
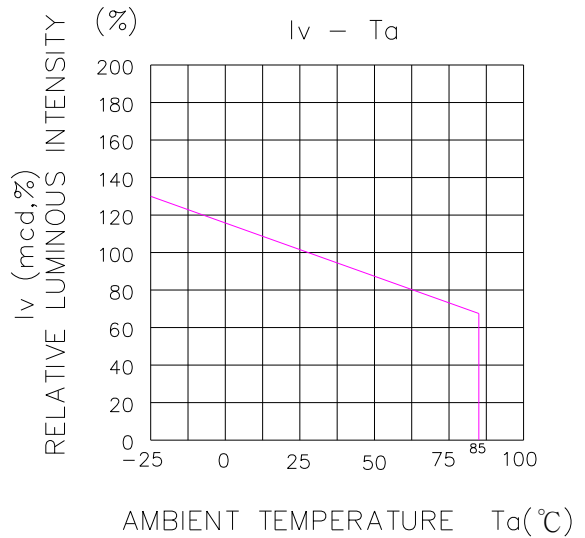
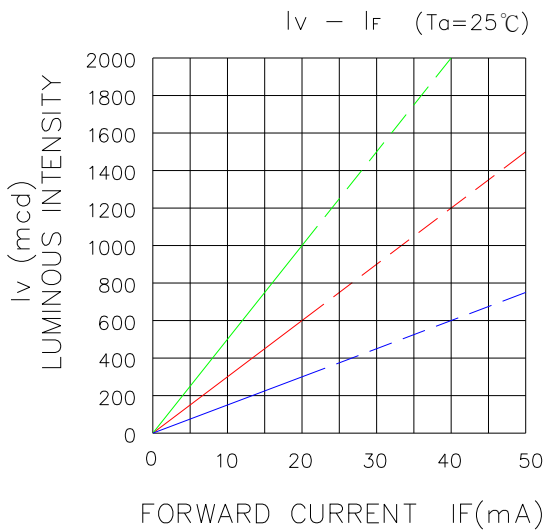
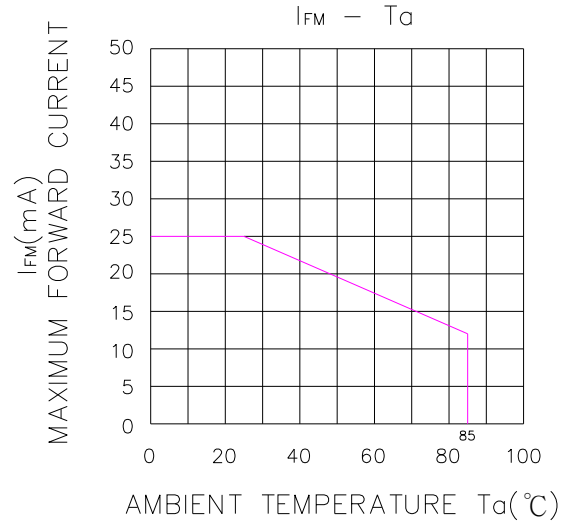
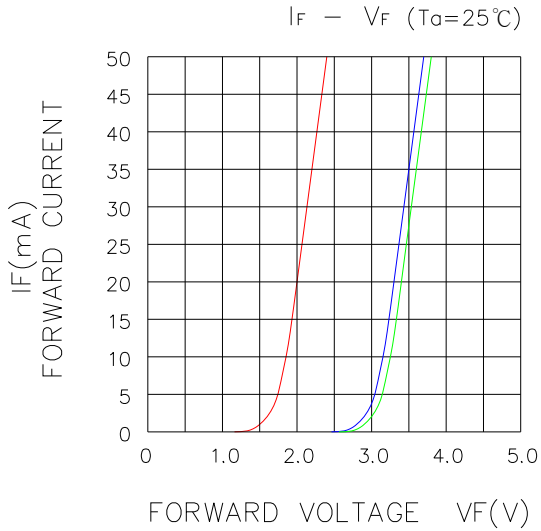
Forward voltage Measurement allowance is ±0.05V

Peak emission wavelength Measurement allowance is ±0.5nm

- 4.DIMENSIONS** UNIT : m/m
SIGN : 1. RED ANODE
2. COMMON CATHODE
3. BLUE ANODE
4. GREEN ANODE

Tolerance is ±0.2mm unless otherwise specified.





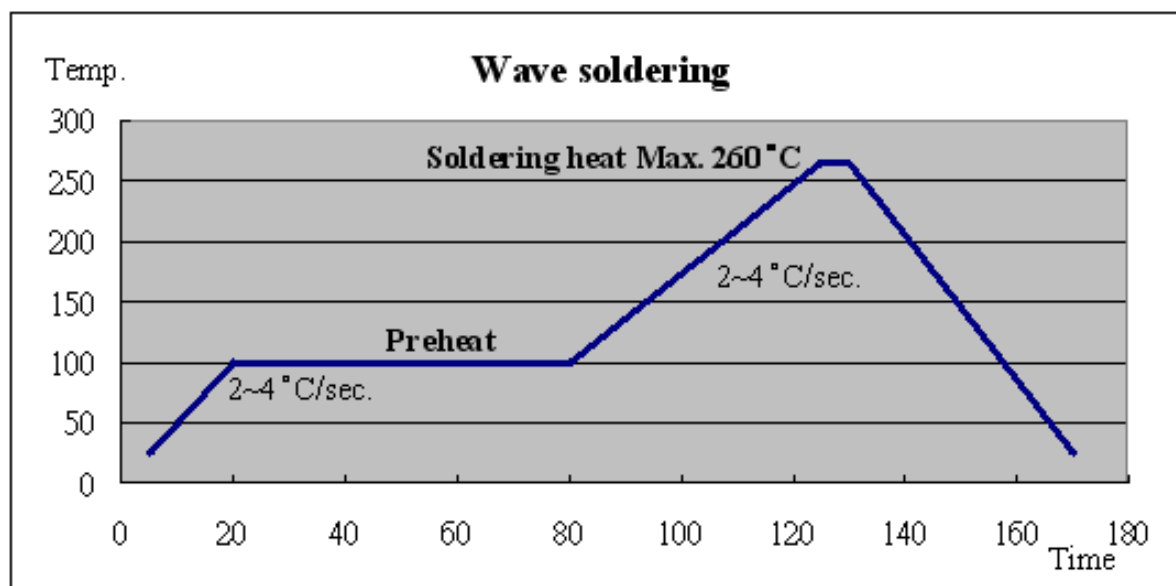
Soldering Profile

Compliant with the following condition :

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

Shape	Lead Frame Type / Holder Type
Hand soldering	1.Temp.at tip of iron : 300 °C 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 : 5 sec MAX. 4.Distance : 3 mm MIN (From solder joint to case).
Reflow soldering	NO
Shape	SMD Type
Hand soldering	1.Temp.at tip of iron : 300 °C MAX. 2.Soldering time : 3 sec MAX.
DIP soldering	1.Preheat temp. : 120-150 °C , 60-120 sec. 2.Bath temp. : 260 °C MAX. 3.Bath time : 5 sec
Reflow soldering	1.Preheat temp. : 150-180 °C , 120 sec MAX. 2.Peak temp. : 260 °C MAX. 3.Peak time : 10 sec MAX.

Lamp wave soldering profile :





Reliability Test Items

CONDITIONS :

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

NO.	Item	Condition	Time/Cycle	Number of Damaged
1	Soldering Heat Test	260°C	5 sec	0/60
2	Thermal Shock	0°C (5min) ~100°C (5min)	20 cycle	0/60
3	High Temp. Storage	100°C	1000 Hrs	0/60
4	Low Temp. Storage	-25°C	1000 Hrs	0/60
5	Temperature Cycle Test	-25°C ~85°C	100 Cycles, 200Hrs	0/60
6	High Temp. High Humidity Test	85°C , 85% RH	1000Hrs	0/60
7	DC Operation Life Test	IF=20mA	1000Hrs	0/60