



HIGH POWER(1W) VISIBLE LED

1.ELEMENT APPEARANCE

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Model No.	Material	Lighting Color	Lens Color
RTS-5050UVTZ-L1 RTS-5050 UVTZ -L1S	InGaN/GaN	Ultraviolet	Water Clear

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Characteristic	Symbol	Rating	Unit
Forward direct current	IFM	350	mA
Reverse voltage	VRM	4	V
Operating temperature	Topr	-25 to +85	°C
Storage temperature	Tstg	-25 to +100	°C
Power dissipation	Pd	1.43	W
Lead soldering temperature 260°C for 5sec.			

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

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux	ψ_v	IF=350mA		10		Lm
Forward voltage	VF	IF=350mA		3.5	4.1	V
Reverse current	IR	VR=4V			10	μ A
Peak emission wavelength	λ_p	IF=350 mA		405		nm
Viewing angle	2θ 1/2	IF=350mA		120		deg.

* Luminous Flux Measurement allowance is $\pm 15\%$ * Forward voltage Measurement allowance is $\pm 0.1V$ * Emission wavelength Measurement allowance is $\pm 1nm$

4.BIN

VF (V) IF=350mA		
BIN	MIN	MAX
V5	2.90	3.20
V6	3.20	3.50
V7	3.50	3.80
V8	3.80	4.10

*VF 誤差值 $\pm 0.1V$

λ_d (nm) IF=350mA		
BIN	MIN	MAX
U12	398.0	401.0
U13	401.0	404.0
U14	404.0	407.0
U15	407.0	410.0
U16	410.0	413.0

*WLD 誤差值 $\pm 1.0nm$

ψ_v (lm) IF=350mA		
BIN	MIN	MAX
P0	8	10
P1	10	13
P2	13	18

*Power 誤差值 $\pm 15\%$ lm

BIN.分別標示如下：

RODAN (TAIWAN) LED.

TYPE	
LOT. NO.	
QUANTITY	
DATE	
NOTE	V__P__U__



Model : RTS-5050UVTZ-L1

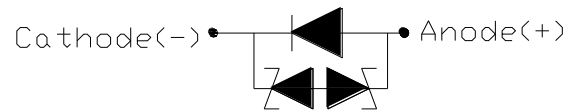
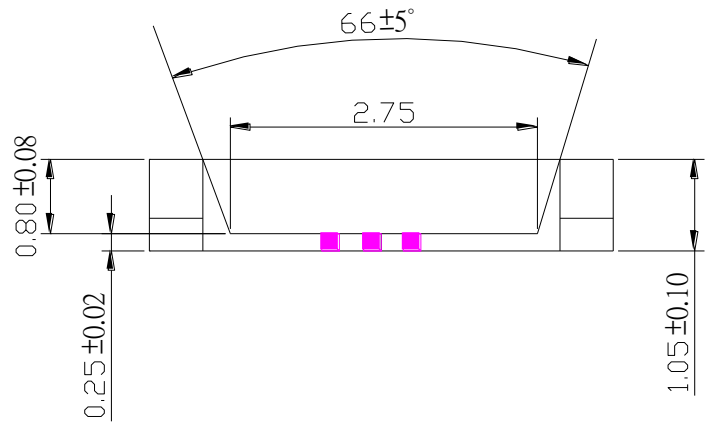
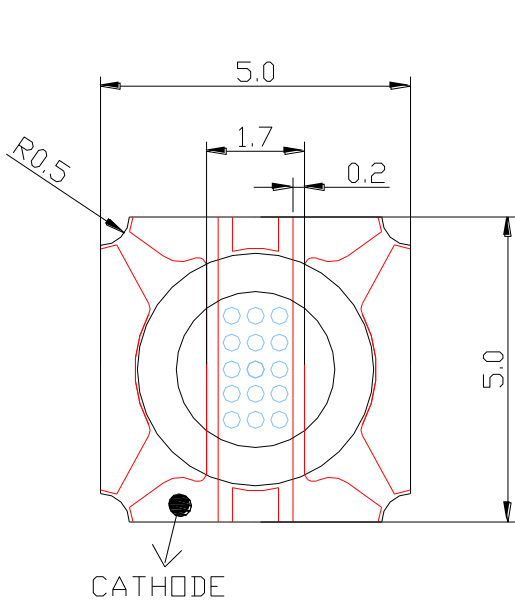
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5.DIMENSIONS UNIT : mm

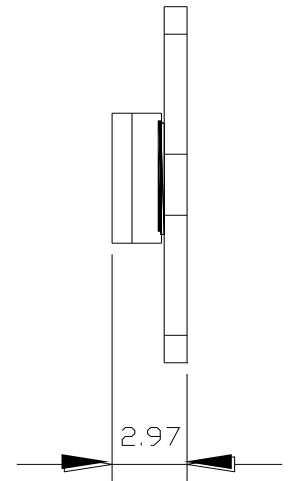
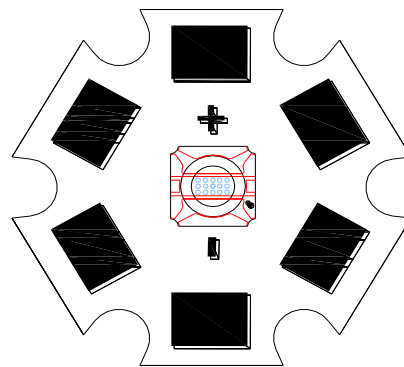
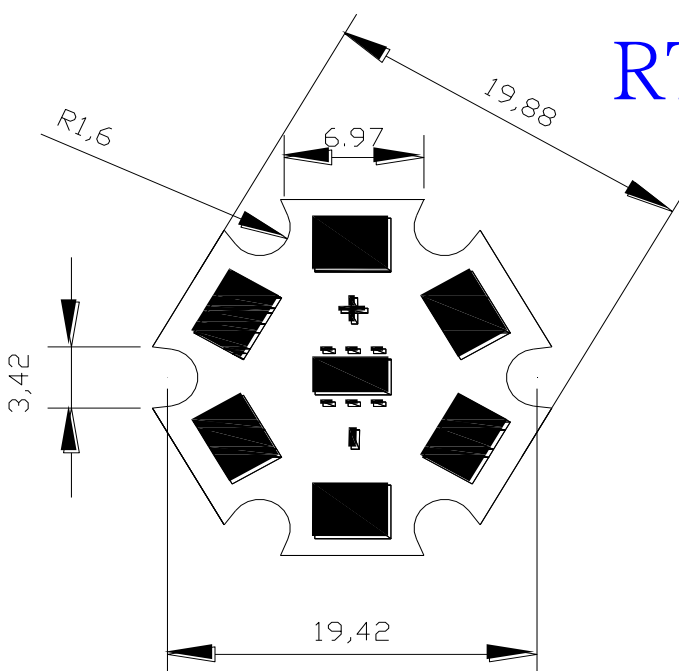
TOLERANCE : ± 0.25 mm



RTS-5050UVTZ-L1



RTS-5050UVTZ-L1S

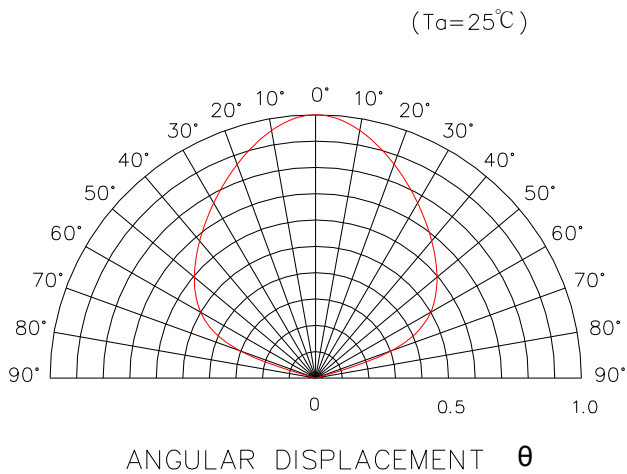
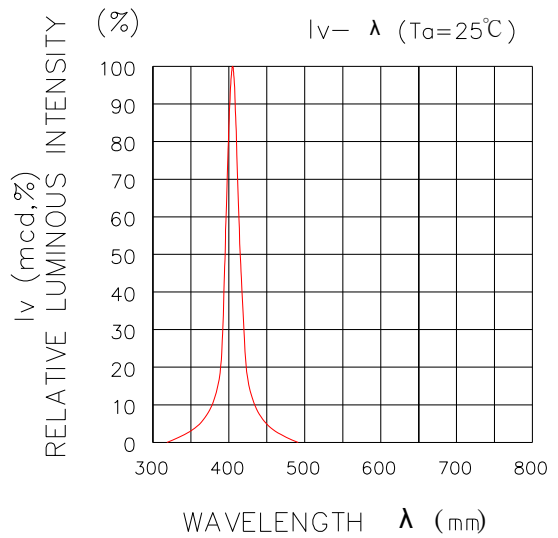
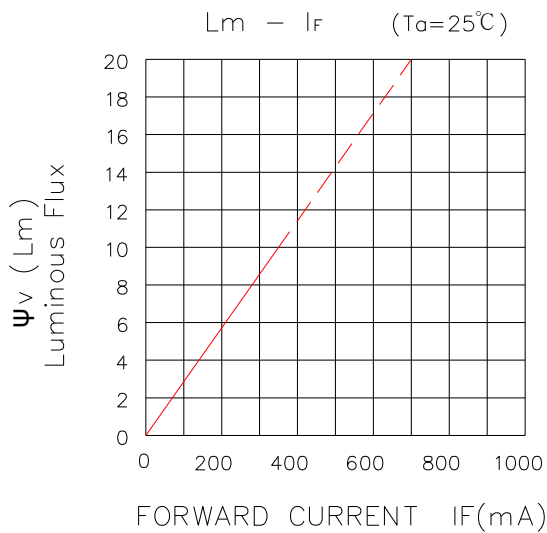
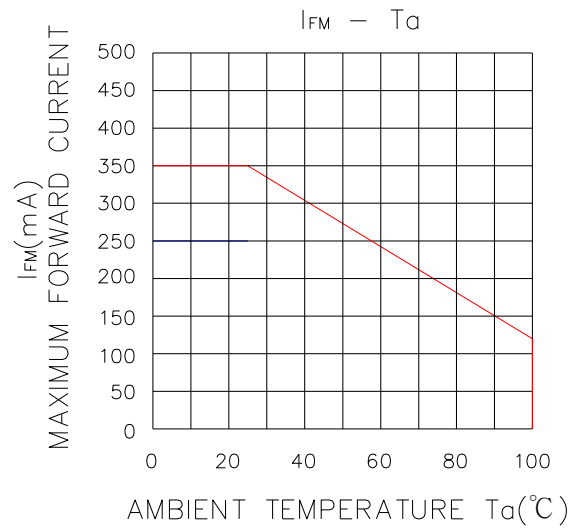
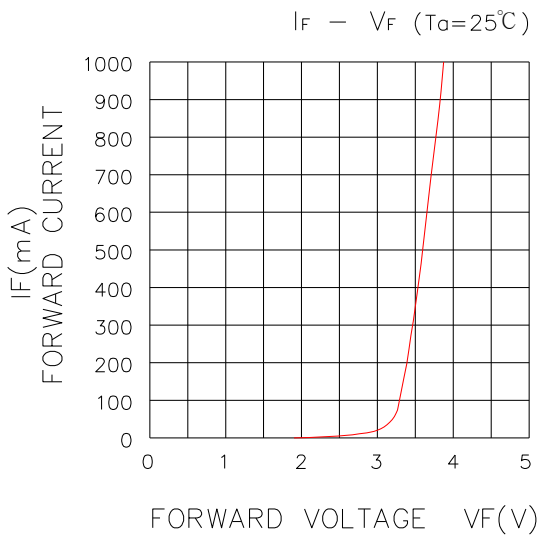




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Model : RTS-5050UVTZ-L1

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Soldering Profile

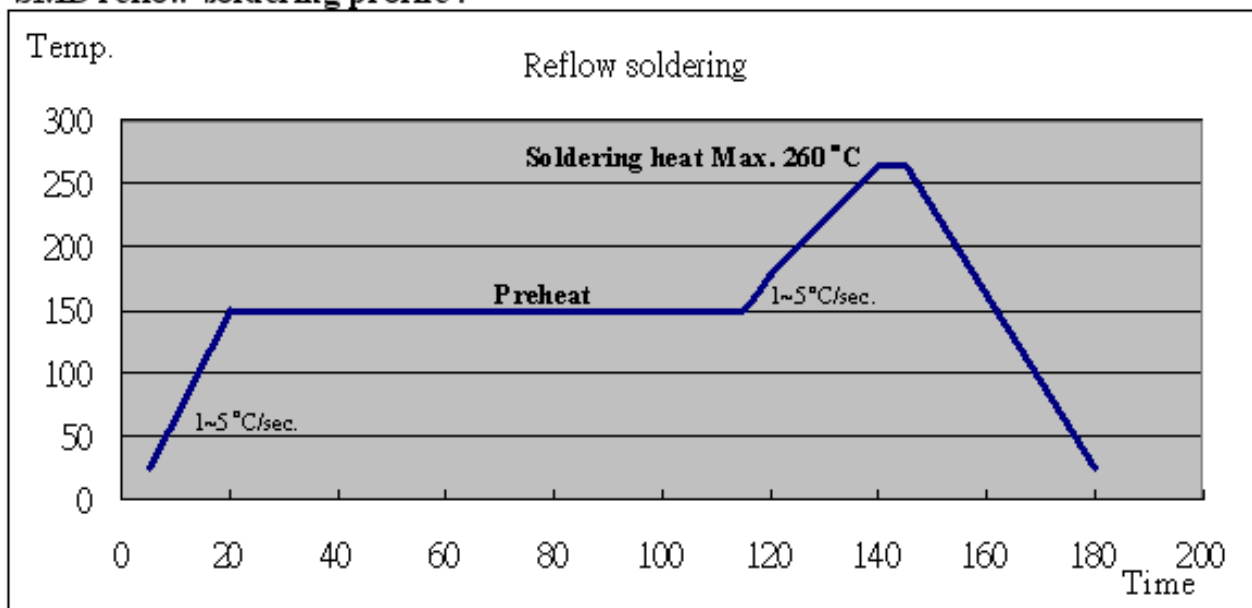
Compliant with the following condition :

(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.

SMD reflow soldering profile :





Reliability Test Items

CONDITIONS :

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

NO.	ITEM	Condition	Time/Cycle	Sample Q'ty	Ac/Re
1	Soldering Heat Test	260°C±5°C	5 sec/ 1 cycle	30 pcs	0/1
2	Temperature Cycle	-25°C×30min ↑ ↓ 5min 100°C×30min	100 cycle	30 pcs	0/1
3	Thermal Shock	-10°C× 5 min ↑ ↓ 10 sec 100°C× 5 min	100 cycle	30 pcs	0/1
4	High Temp. Storage	100°C	1000 Hrs	30 pcs	0/1
5	Low Temp. Storage	-25°C	1000 Hrs	30 pcs	0/1
6	DC Operating Life	IF=350mA@25°C	1000 Hrs	30 pcs	0/1
7	High Temp. High Humidity Storage Test	Ta=85°C , RH 85%	1000Hrs	30 pcs	0/1