



RODAN(TAIWAN)LTD.

1.ELEMENT APPEARANCE

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DATE:2023.05.08

Model No.	Material	Lighting Color	Resin Color
RT-2204KB-CT	InGaN	Blue	Water 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	100	mW

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

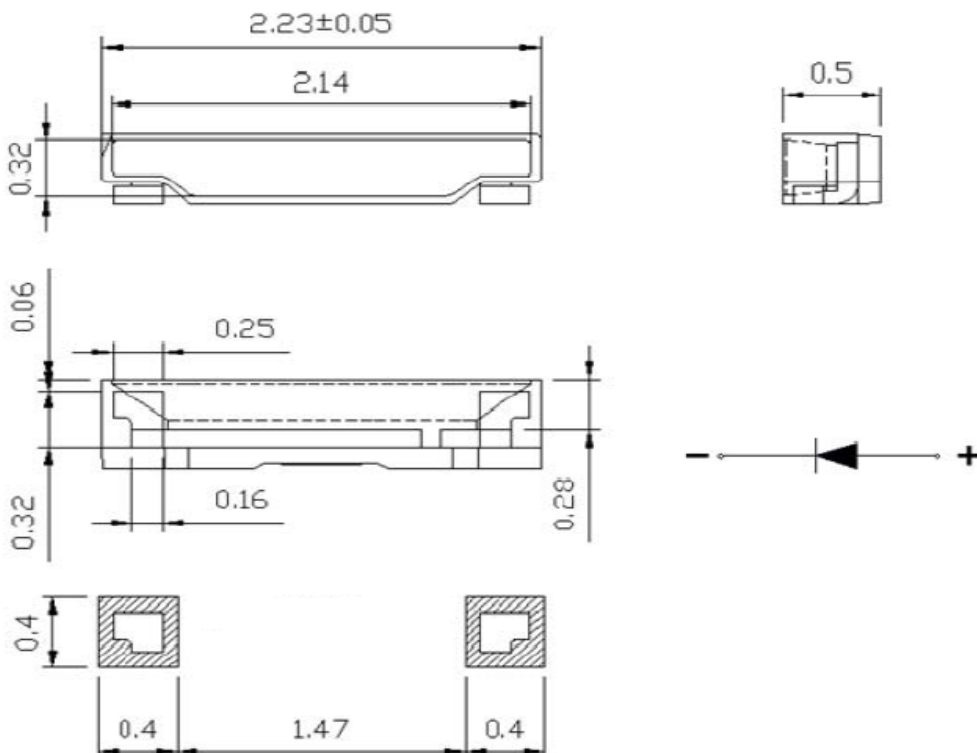
Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous intensity	Iv	IF=20mA	100		400	mcd
Forward voltage	VF	IF=20mA	2.7	~	3.3	V
Reverse current	IR	VR=5V			10	μA
Dominant wavelength	λd	IF=20mA	445	~	460	nm
Spectral band width @ 50%	Δλ	IF=20mA		25		nm
Viewing angle	2θ 1/2	IF=20mA		120		deg.

※Measurement Uncertainty of Luminous Intensity : ±15%

※Measurement Uncertainty of Forward Voltage : ±0.05V

※Peak emission wavelength Measurement allowance is ±1nm

5.DIMENSIONS UNIT : m/m TOLERANCE : ± 0.1 mm





6. BIN:

VF (IF=20mA)		
BIN	MIN	MAX
V1	2.7	2.8
V2	2.8	2.9
V3	2.9	3.0
V4	3.0	3.1
V5	3.1	3.2
V6	3.2	3.3

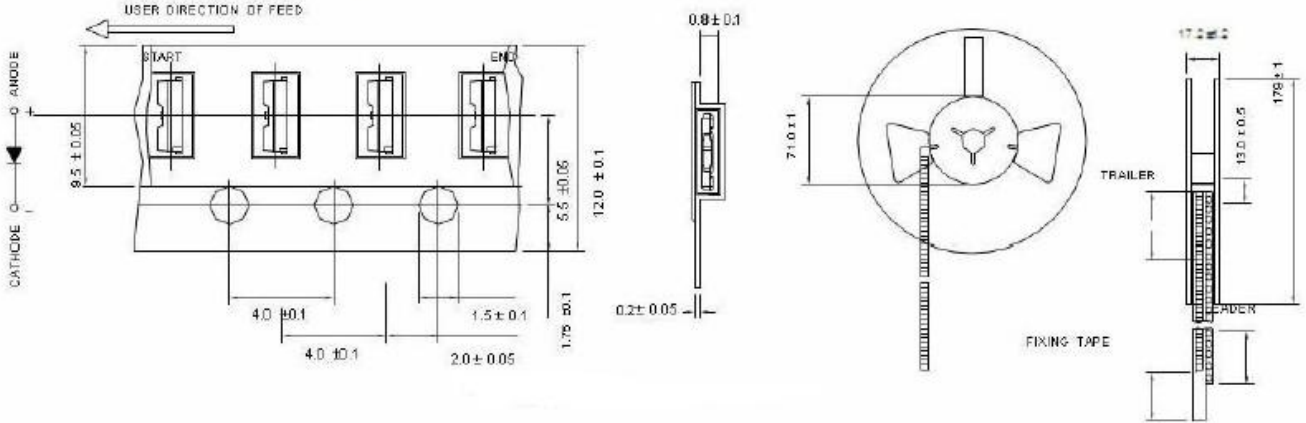
Luminous Intensity (mcd) , If =20 mA		
Rank	min	max
L1	100	200
L2	200	300
L3	300	400

Dominant wavelength(λ_d), If =20 mA		
Rank	min	max
D1	447.5	450
D2	450	452.5
D3	452.5	455
D4	455	457.5
D5	457.5	460



7. Tapping:

Tapping specifications(Units: mm)



PACKAGE: 5000Pcs/Reel

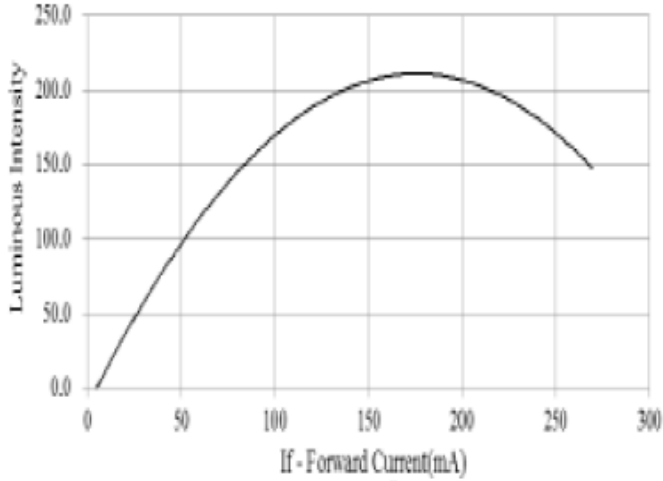


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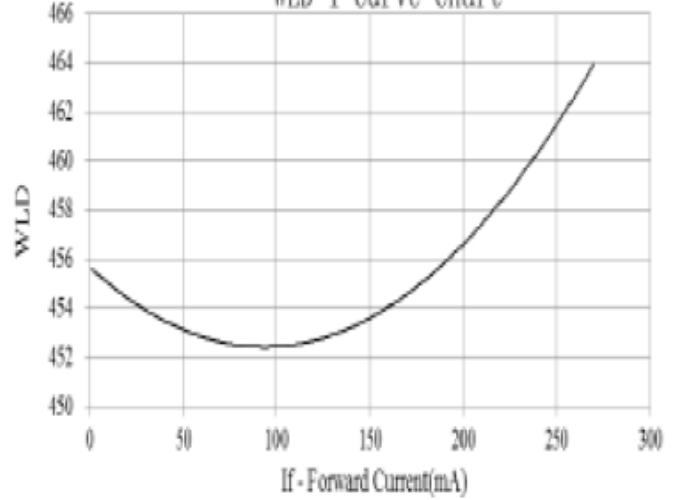
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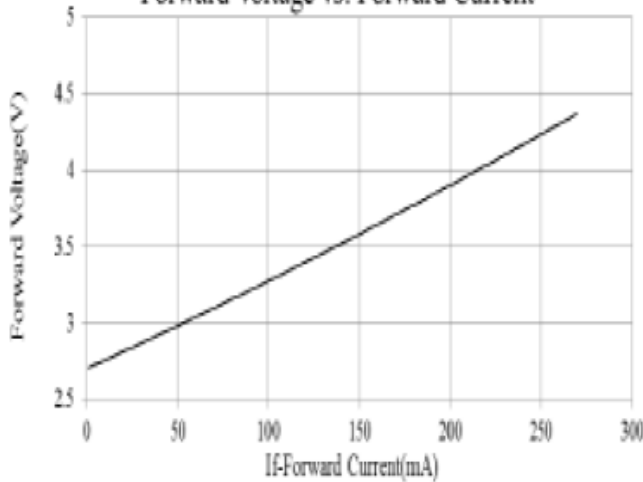
Luminous Intensity vs. Forward Current



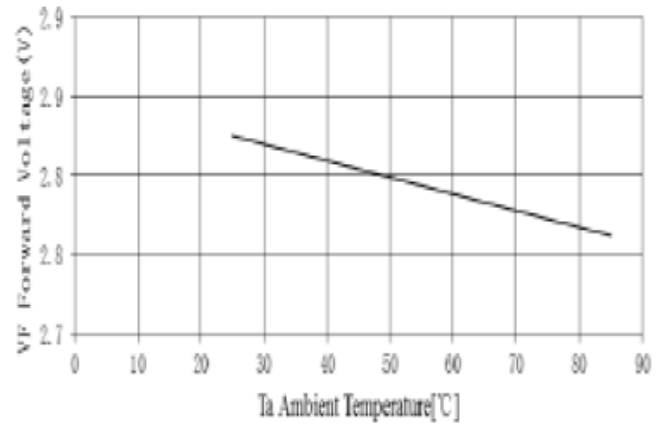
WLD-I Curve Chart



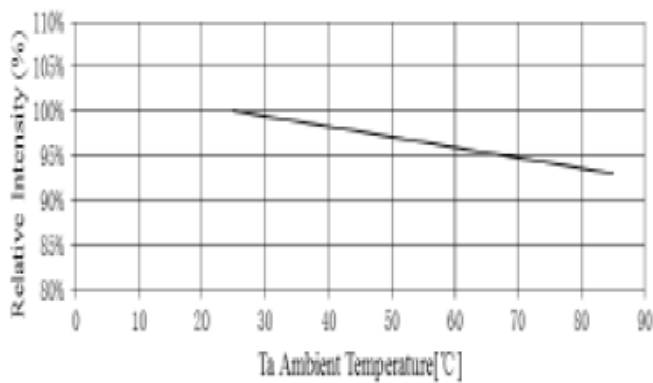
Forward Voltage vs. Forward Current



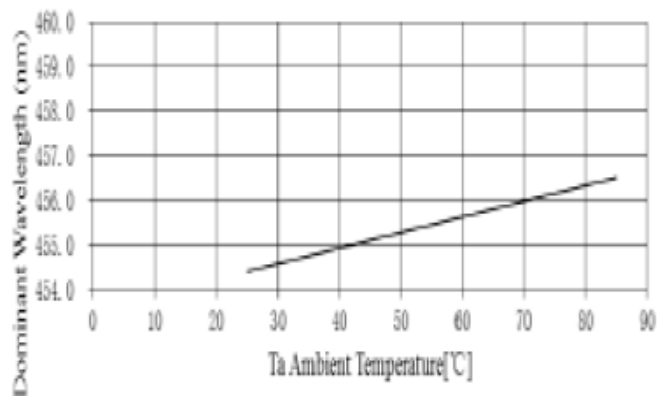
Forward Voltage vs. Ambient Temperature



Temperature



Temperature





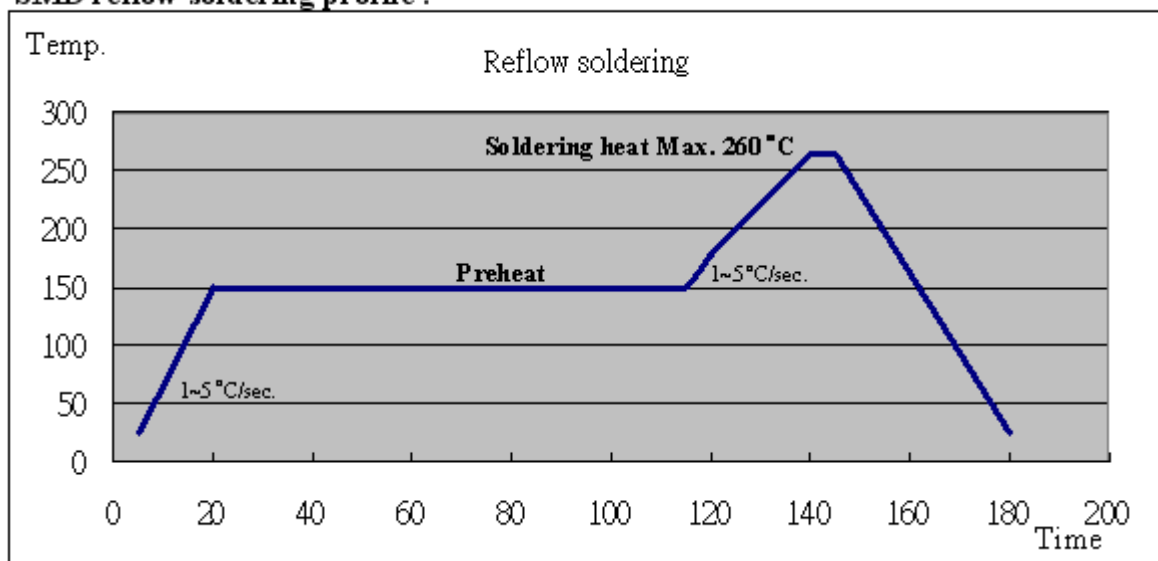
Soldering Profile

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 (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 : 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 (30W 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.	<u>Item</u>	Condition	Time / Cycle	Criteria	Ac / Re	Sample Quantity
1	Soldering Heat Test	260°C	5 sec	Open / Shot	0 / 1	60 pcs
2	Thermal Shock	0°C (5min) ~85°C (5min)	20 Cycles	Open / Shot	0 / 1	60 pcs
3	High Temp. Storage	85°C	1000 Hrs	Open / Shot	0 / 1	60 pcs
4	Low Temp. Storage	-40°C	1000 Hrs	Open / Shot	0 / 1	60 pcs
5	Temperature Cycle Test	-40°C ~80°C	100 Cycles , 200Hrs	Open / Shot	0 / 1	60 pcs
6	High Temp. High Humidity Test	60°C , 90% RH	1000Hrs	Open / Shot	0 / 1	60 pcs
7	DC Operation Life Test	IF=20mA	1000Hrs	Power decay	≤ 30%	60 pcs