



RODAN(TAIWAN)LTD.

PHOTODIODE

審查	作成
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1.ELEMENT APPEARANCE

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DATE:2016.09.20

Model No.	Lighting Color	Resin Color
RT-356SBSN	Non-Visible	Black Color

2.ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

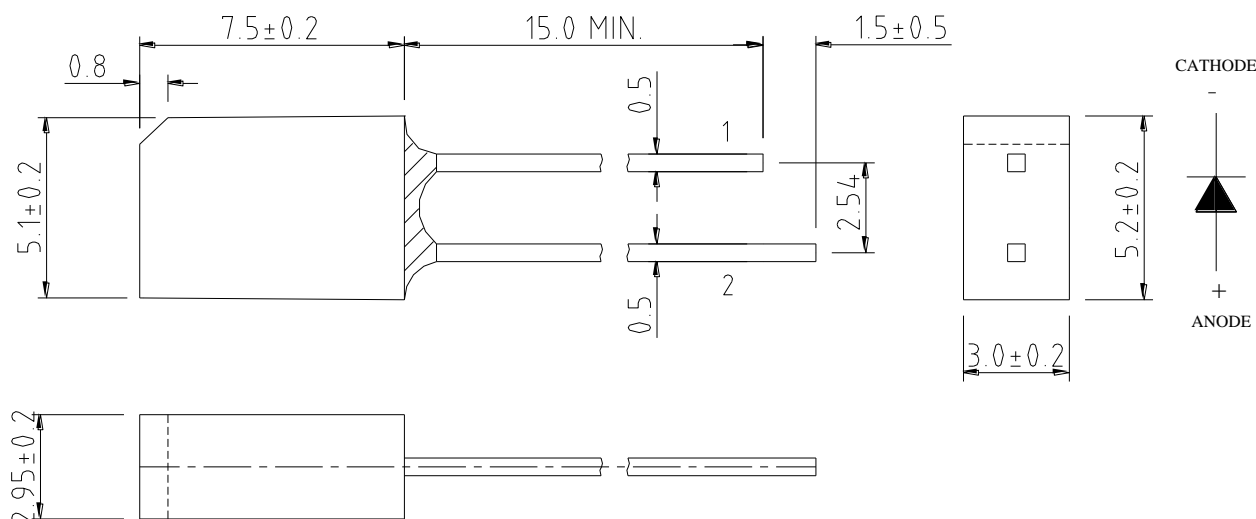
Characteristic	Symbol	Rating	Unit
Operating temperature	Topr	-25 to +85	°C
Storage temperature	Tstg	-25 to +100	°C

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

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	V _{BR}	I _R =100μ A	33	170		V
Reverse dark current	I _D	V _R =10V			30	nA
Light current	I _L	Ee=0.5mW/cm ² ,@940nm	24	40		μ A
Open circuit voltage	V _{OC}	Ee=5mW/cm ²		350		mV
Short circuit current	I _{SC}	Ee=5mW/cm ²		80		μ A
Total capacitance	C _t	V _R =5V , f=1MHZ		21		pF
Wavelength of the max. sensitivity	λ p			900		nm
Radiant sensitivity area	A			8.0		mm ²
Turn-on/Turn-off Time	ton/toff	V _R =5V , R _L = 50Ω		50/50		ns
Viewing angle	2θ 1/2			140		deg.

4.DIMENSIONS UNIT : m/m
SIGN : 1.CATHODE
2.ANODE

Tolerance is ±0.2mm unless otherwise specified.



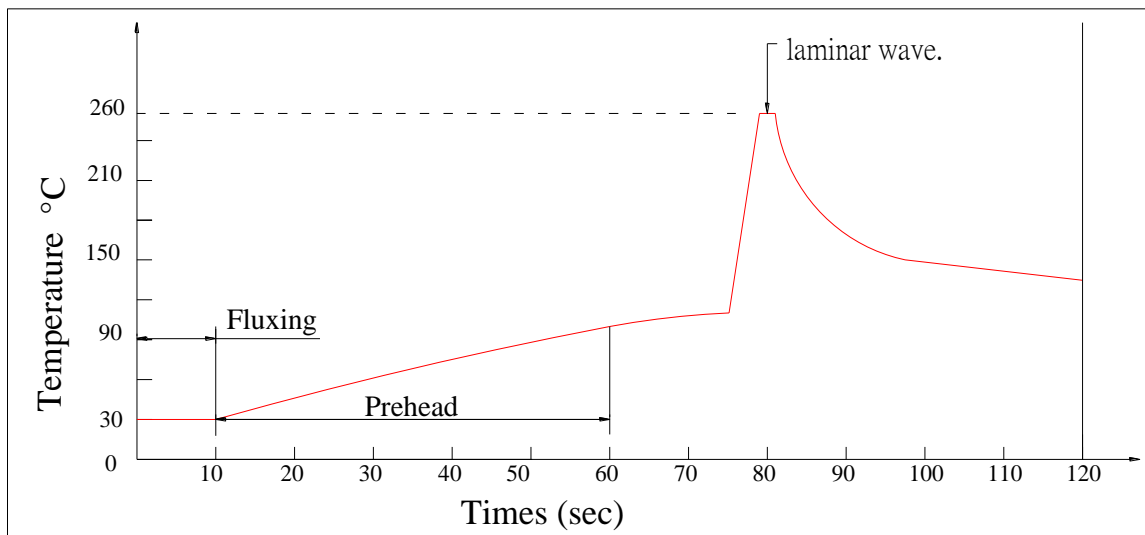


Soldering Profile

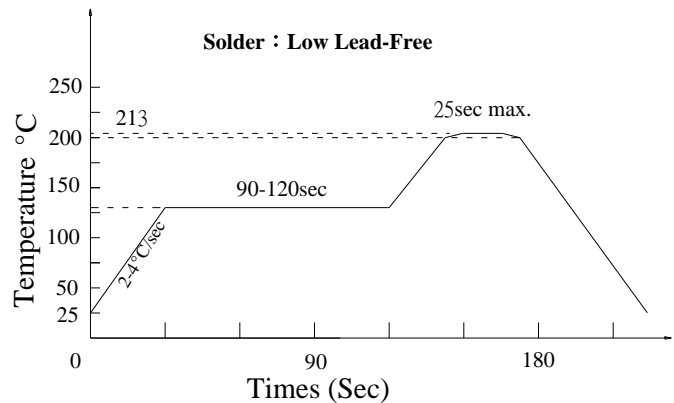
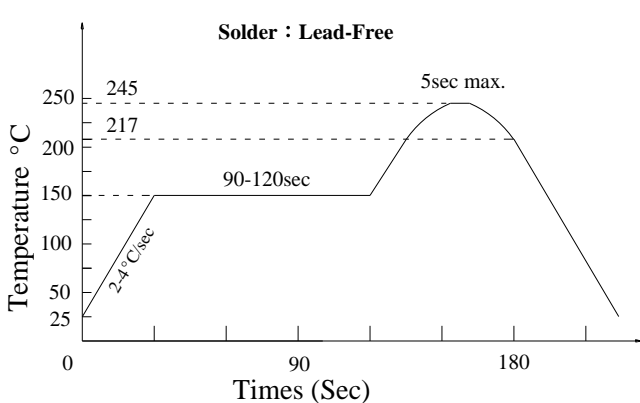
Compliant with the following condition :

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

Shape	Lead Frame Type
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.





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	Operation Life Test	Room Temp. @IR940nm	1000Hrs	0/60