



PHOTODIODE

1.ELEMENT APPEARANCE

PAGE : 1 / 4

Model No.	Material	Lighting Color	Resin Color
RT3-21124SDBS	-	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
Lead soldering temperature (3mm from body) 260°C for 5sec.			

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

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	V _{BR}	I _R =100 μA	33			V
Reverse dark current	I _D	V _R =10V			10	nA
Light current	I _L	E _e =0.5mW/cm ² , @940nm	1.5	2.5		μA
Junction capacitance	C _j	V _R =3V, f=1MHZ		3		pF
Wavelength of the max. sensitivity	λ _p			900		nm
Radiant sensitivity area	A			0.74		mm ²
Turn-on/Turn-off Time	ton/toff	V _R =5V, R _L =50Ω λ=850nm		100/150		ns
Viewing angle	2θ 1/2			130		deg.

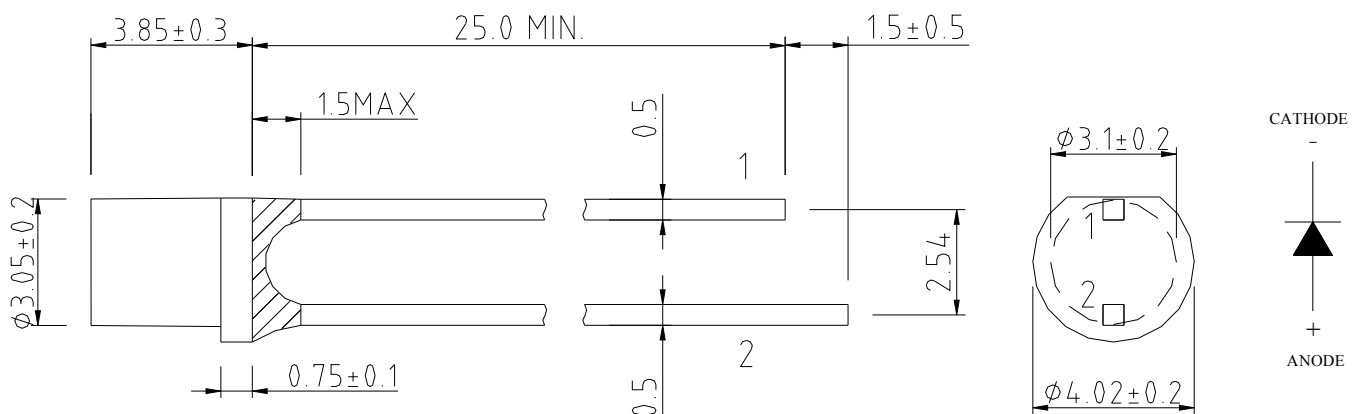
※ I_L 誤差値±15% μA

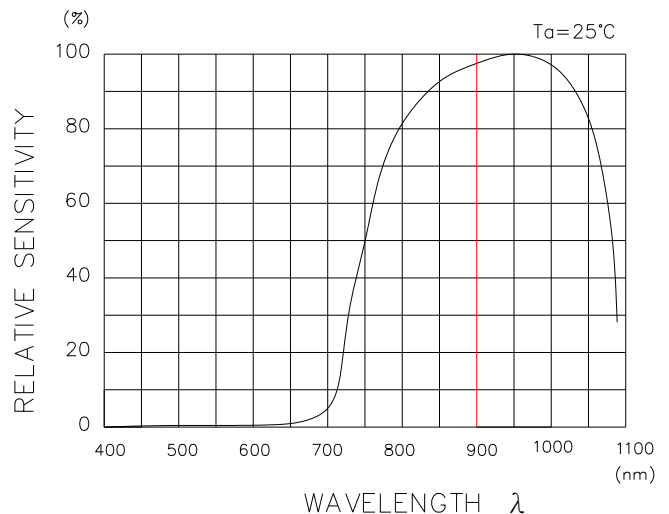
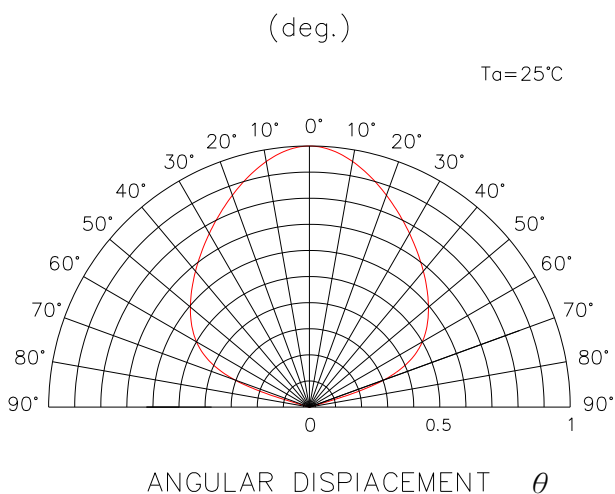
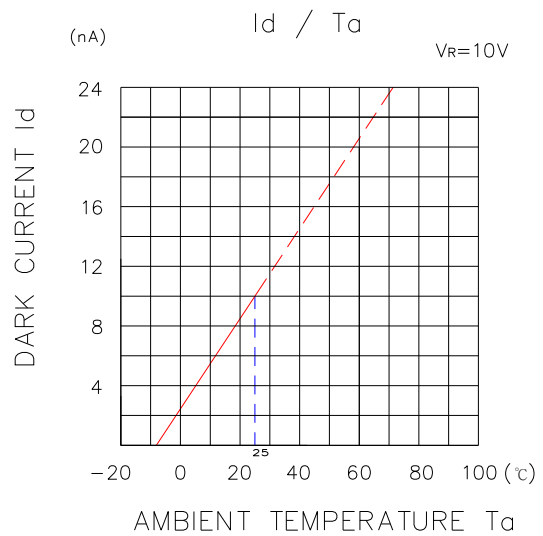
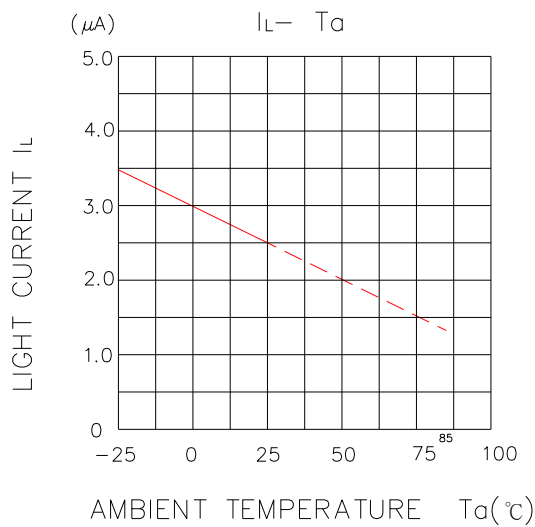
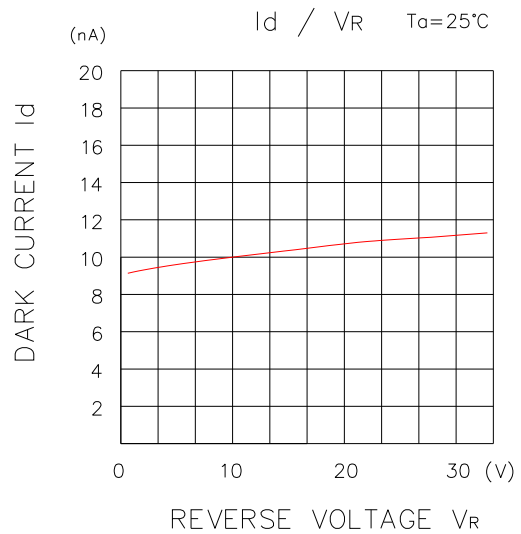
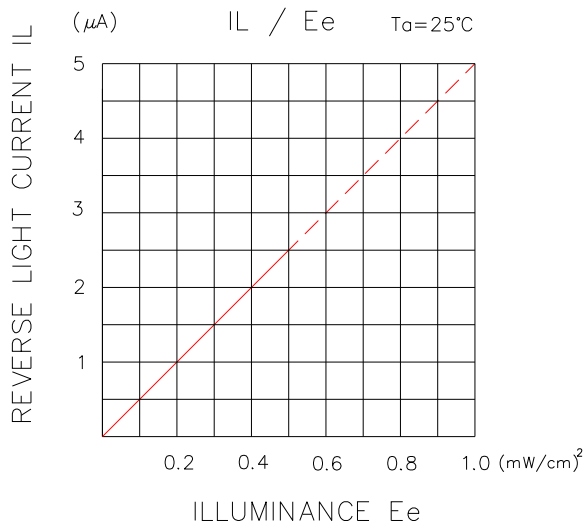
4.DIMENSIONS UNIT : m/m

SIGN : 1.CATHODE

2.ANODE

Tolerance is ±0.2mm unless otherwise specified.







Soldering Profile

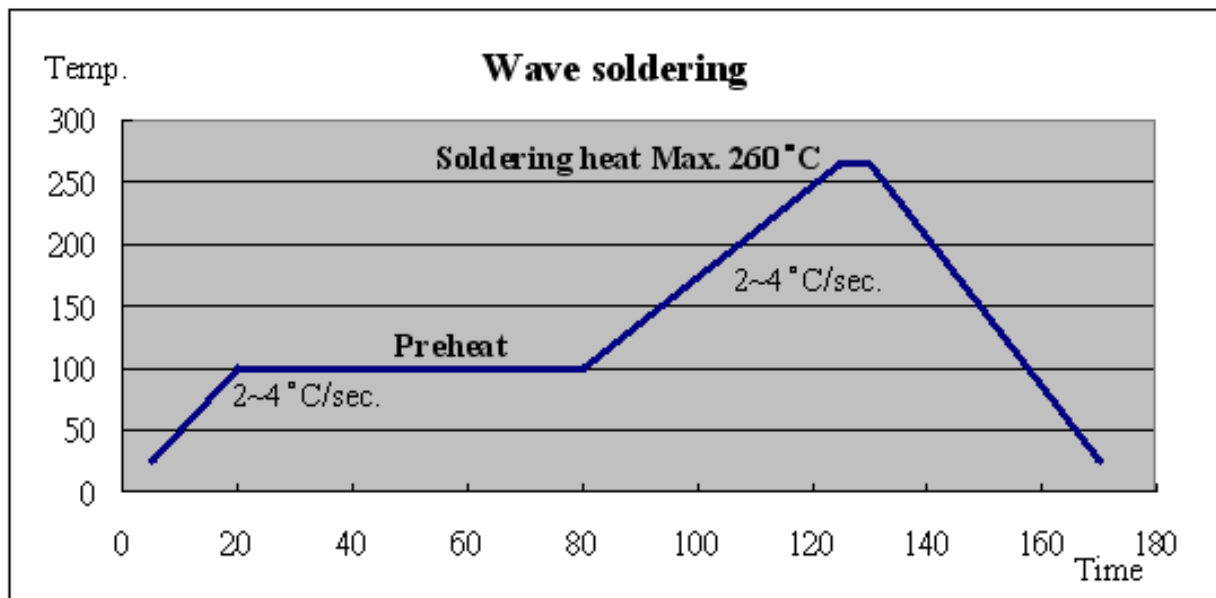
Compliant with the following condition :

(1) Leaded quantity of product below 100 ppm

(2) Lead-free process

Shape	Lead Frame Type / 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	Operation Life Test	Room Temp. @IR940nm	1000Hrs	0/60