

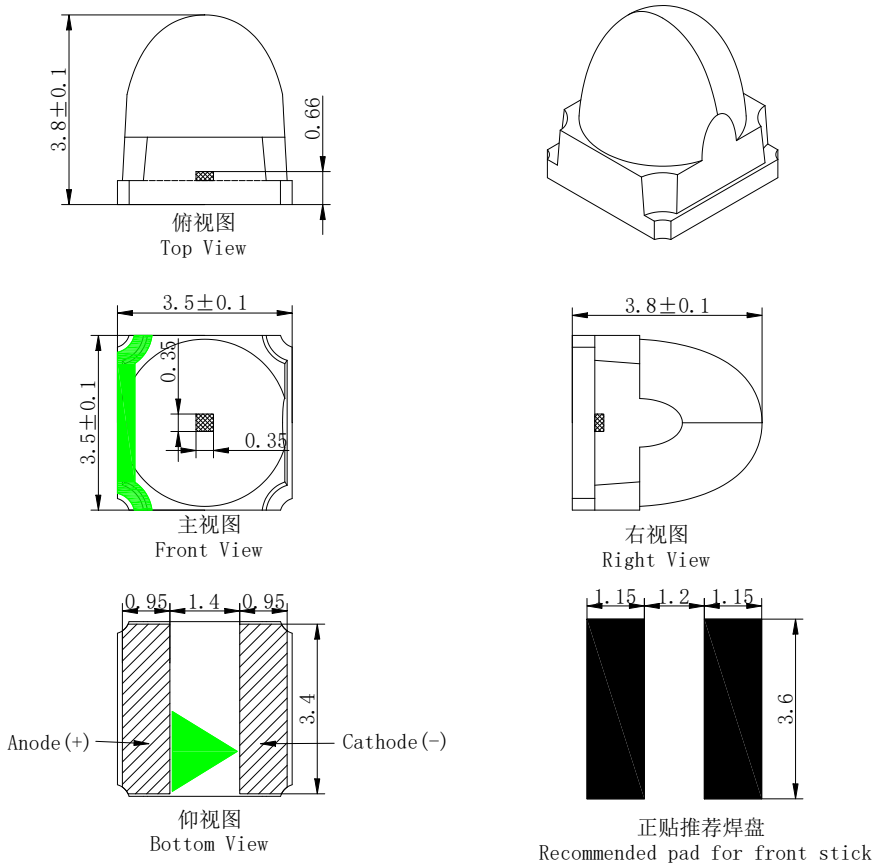
### Features

- Small double-end package
- Viewing Angle =  $\pm 20^\circ$
- High reliability
- Good spectral matching to Si photo detector
- RoHS compliance

### Applications

- Infrared sensor
- CCB cameras

### Package Dimension *All dimensions are in mm, unless otherwise stated*



### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

## Absolute Maximum Rating at 25°C

Symbol	Parameters	Ratings	Units	Notes
I <sub>F</sub>	Continuous Forward Current	100	mA	
I <sub>FP</sub>	Peak Forward Current	1	A	1
V <sub>R</sub>	Reverse Voltage	5	V	
T <sub>opr</sub>	Operating Temperature	-30 ~ +85	°C	
T <sub>stg</sub>	Storage Temperature	-40 ~ +85	°C	
T <sub>sol</sub>	Soldering Temperature	260	°C	2
P <sub>D</sub>	Power Dissipation at(or below) 25°C Free Air Temperature	160	mW	

Electro-Optical Characteristics *TA = 25°C (unless otherwise specified)*

## Optical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I <sub>e</sub>	Radiant Intensity	I <sub>F</sub> = 20 mA	80	110	140	mW/sr	
λ <sub>p</sub>	Peak Wavelength	I <sub>F</sub> = 20 mA	-	940	-	nm	
Δλ	Spectral Bandwidth	I <sub>F</sub> = 20 mA	-	50	-	nm	
θ <sub>1/2</sub>	Angle of Half Intensity	I <sub>F</sub> = 20 mA	-	±20	-	deg	

## Electrical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 20 mA	1.4	1.6	2.0	V	
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 5V	-	-	10	μA	

## Notes:

1. I<sub>FP</sub> Conditions--Pulse Width ≤ 100 μs and Duty ≤ 1%.
2. Soldering time ≤ 5 seconds.

### Typical Optical/Electrical Characteristics Curves ( $T_a=25^\circ\text{C}$ Unless Otherwise Noted)

Fig.1-Relative Radiant Flux vs. Forward Current

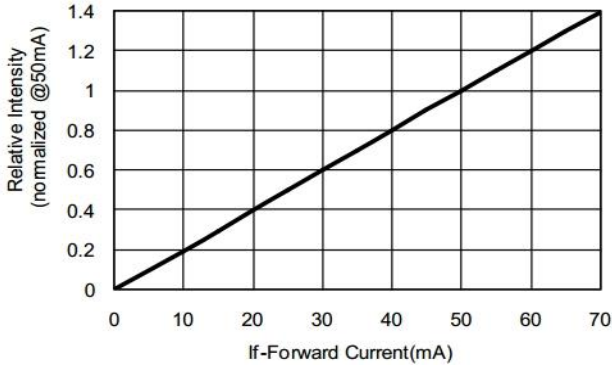


Fig.2-Forward Current vs. Forward Voltage

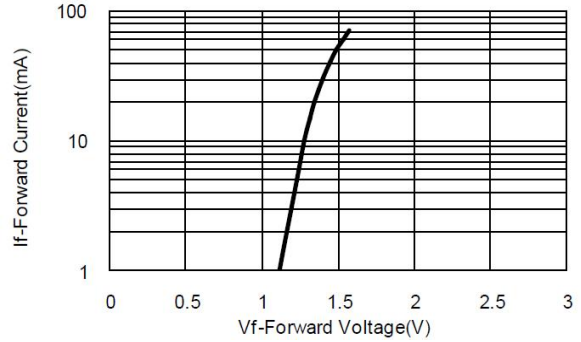


Fig.3-Relative Intensity (@20mA) vs. Ambient Temperature

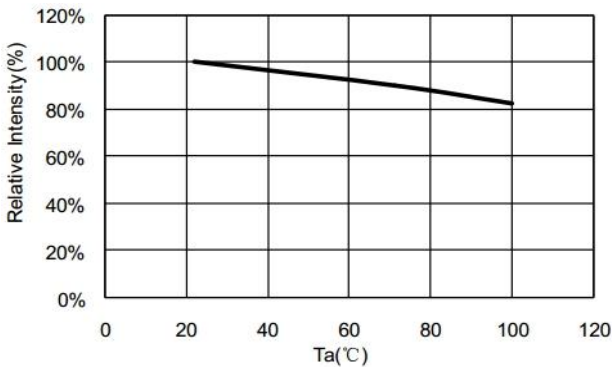


Fig.4-Forward Voltage (@20mA) vs. Temperature

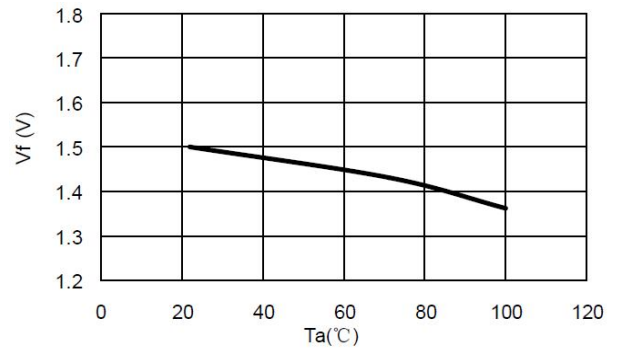


Fig.5- Peak Wavelength (@20mA) vs. Ambient Temperature.

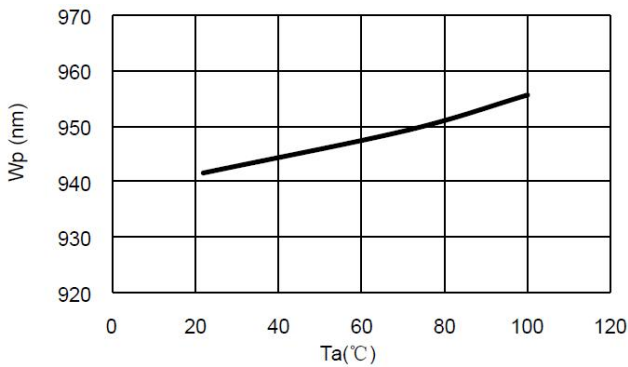
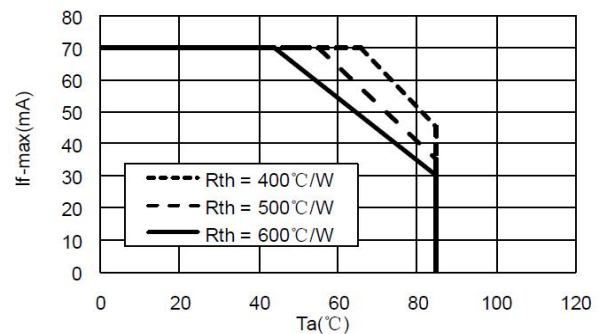
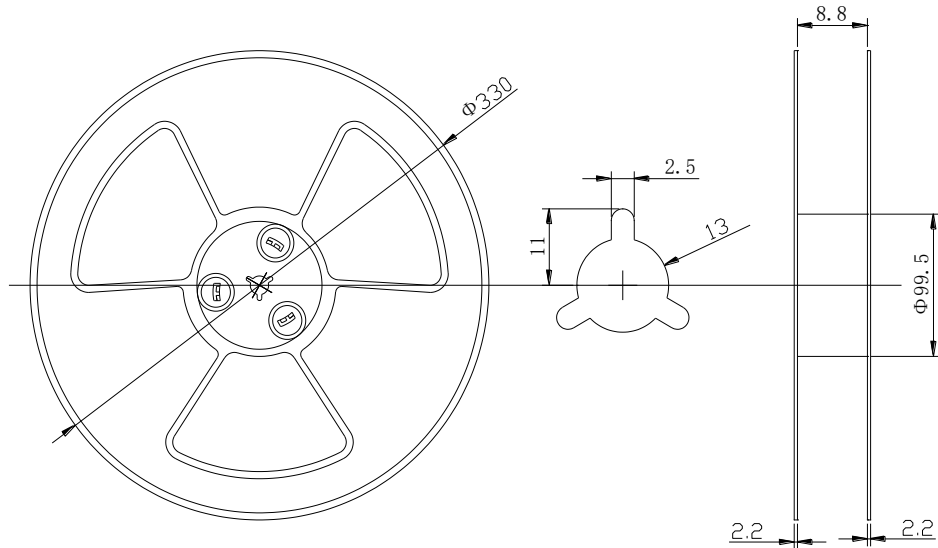


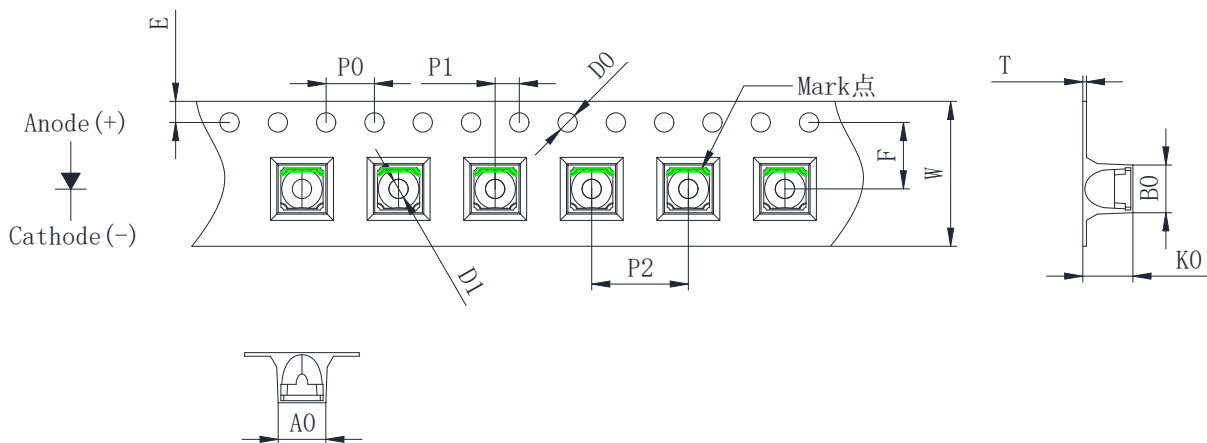
Fig.6- Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on  $T_j$  max=115°C)



**Reel Dimension** All dimensions are in mm, unless otherwise stated .Package quantity:2000PCS/Roll.



**Tape Dimension** All dimensions are in mm, unless otherwise stated



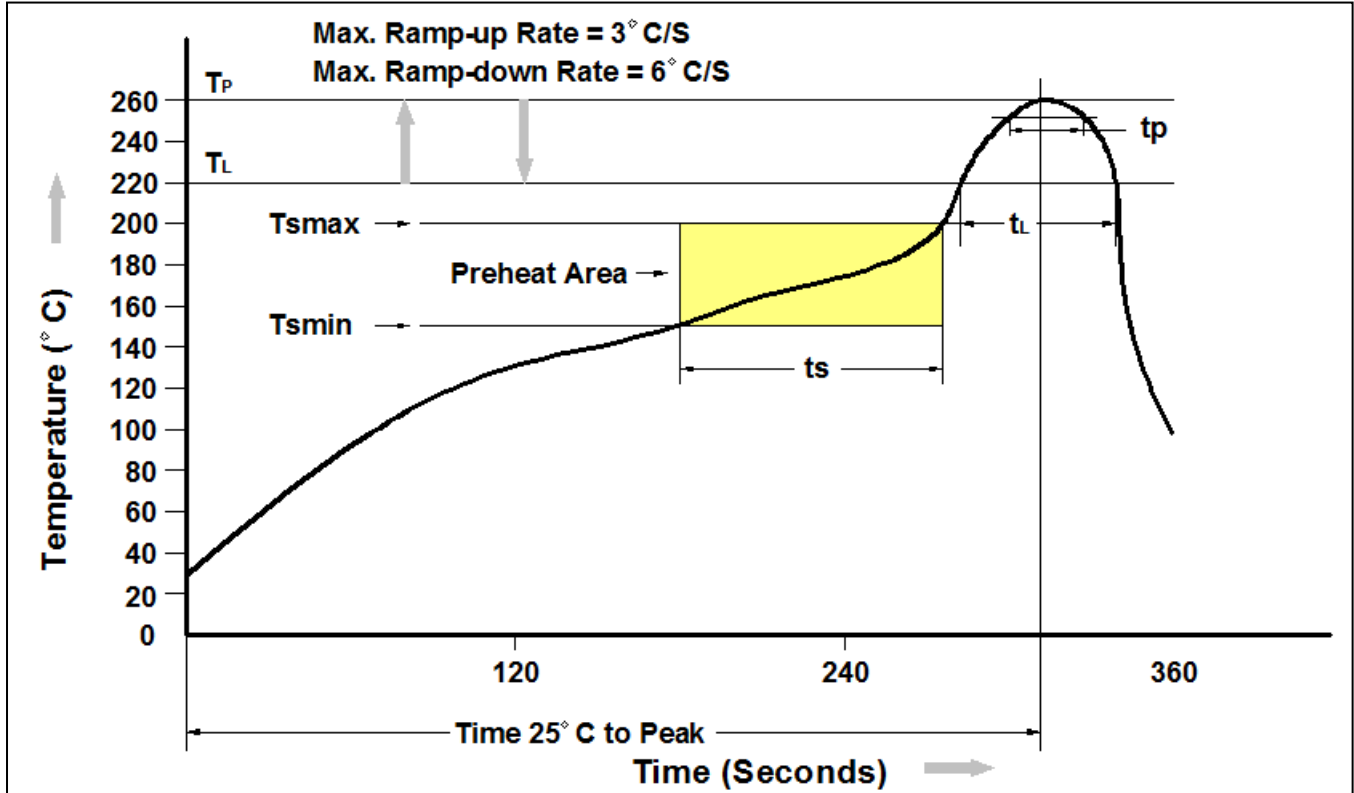
TIEM	W	A0	B0	K0	E	F	D0	D1	P0	P1	P2	T
DIM	12.00	3.75	3.75	3.95	1.75	3.50	1.60	1.60	4.00	2.00	8.00	0.30
TOLE	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.10	±0.03

说明：产品正面绿色 Mark 点为正极。

Note: The green Mark point on the front of the product is the anode.

**Note:** The tolerances unless mentioned is ±0.1mm ,Unit = mm

Reflow Profile



Profile Feature	Pb-Free Assembly Profile
Temperature Min. (Tsmmin)	150°C
Temperature Max. (Tsmmax)	200°C
Time (ts) from (Tsmmin to Tsmmax)	60-120 seconds
Ramp-up Rate (tl to tp)	3°C/second max.
Liquidous Temperature (Tl)	217°C
Time (tl) Maintained Above (Tl)	60 – 150 seconds
Peak Body Package Temperature	260°C +0°C / -5°C
Time (tp) within 5°C of 260°C	30 seconds
Ramp-down Rate (Tp to Tl)	6°C/second max
Time 25°C to Peak Temperature	8 minutes max.