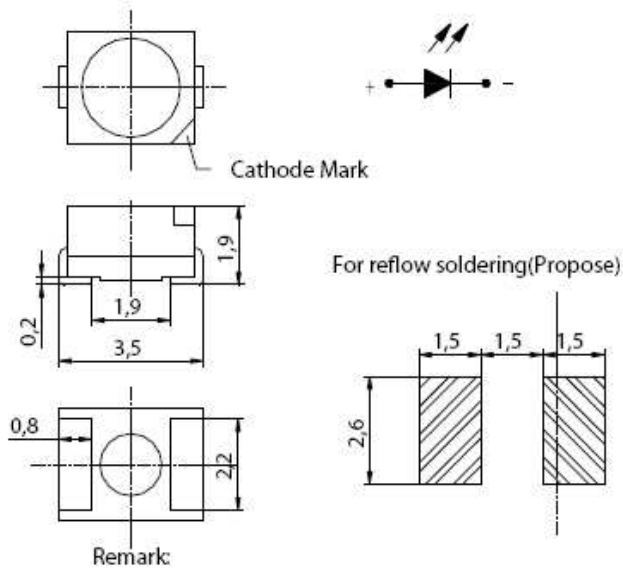


## BALIZA INFRARROJOS



1. the tolerances less than  $\pm 0.1\text{mm}$
2. unit: mm



### Features

- High reliability
- High radiant intensity
- Peak wavelength  $\lambda_p=940\text{nm}$
- 2.54mm Lead spacing
- Low forward voltage
- The product itself will remain within RoHS compliant version.

### Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	I <sub>F</sub>	40	mA
Peak Forward Current	I <sub>FP</sub>	1	A
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +85	°C
Soldering Temperature	T <sub>sol</sub>	260	°C
Power Dissipation at 25°C Free Air Temperature	P <sub>d</sub>	70	mW

#### Notes:

1. I<sub>FP</sub> Conditions--Pulse Width  $\leq 100\mu\text{s}$  and Duty  $\leq 1\%$ .
2. Soldering time  $\leq 5$  seconds.

### Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =20mA	7.8	15	--	mW/sr
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =100mA Pulse Width $\leq 100\mu\text{s}$ ,Duty $\leq 1\%$	--	140	--	mW/sr
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =1A Pulse Width $\leq 100\mu\text{s}$ ,Duty $\leq 1\%$	--	940	--	mW/sr
Peak Wavelength	$\lambda_p$	I <sub>F</sub> =20mA	--	940	--	nm
Spectral Bandwidth	$\Delta\lambda$	I <sub>F</sub> =20mA	--	45	--	nm
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA	--	1.45	1.65	V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =100mA Pulse Width $\leq 100\mu\text{s}$ ,Duty $\leq 1\%$	--	1.8	2.40	V
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1A Pulse Width $\leq 100\mu\text{s}$ ,Duty $\leq 1\%$	--	4.1	5.25	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	--	--	5	$\mu\text{A}$
View Angle	2 $\theta_{1/2}$	I <sub>F</sub> =20mA	--	120	--	deg
Distance can be measured	D	I <sub>F</sub> =100mA	--	--	2.5	mi
Height can be measured	D	I <sub>F</sub> =100mA	--	--	800	ft

### 1. Over-current-proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change ( Burn out will happen ).

### 2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.

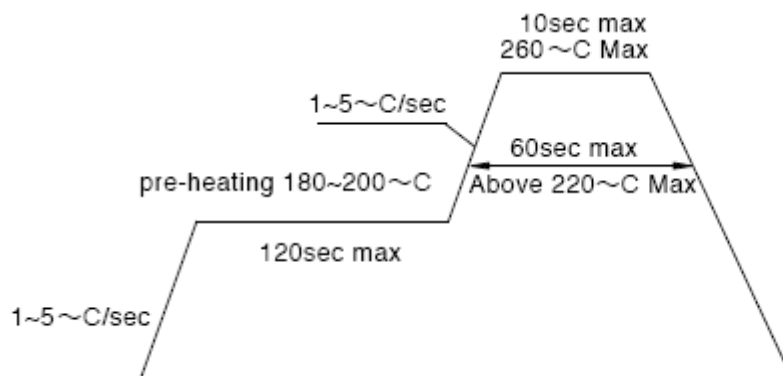
2.3 After opening the package: The LED's floor life is 1 year under 30°C or less and 60% RH or less.

2.4 If unused LEDs remain, it should be stored in moisture proof packages.

2.5 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment : 60±5°C for 24 hours..

### 3. Soldering Condition

#### 3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

3.4 After soldering, do not warp the circuit board.

#### Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand soldering.