

3528 Product Specification

Product Name: 3528 Green Light

Product model: 3528G

Document number: 15

Description:

3.5 * 2.8mm surface mount diode

Colloid color: White Colloid

Glow color: green

Half power angle: 120 °

Chip material:



Note:

The incision of this product is negative.

Main photoelectric characteristics:

Items	Symbol	Maximum specification	Unit
Peak forward current	IPP	35	mA
Forward current	IF	20	MA
Reverse voltage	VR	5	V
Power consumption	PD	100	mW
Working temperature	Topr	-20~+75	°C
Storage temperature	Tstg	-30~+80	°C

Symbol	Test conditions	Minimum value	Average value	Maximum value	Unit
x	IF=00mA	--		--	--
Y	IF=20MA				
2θ1/2	IF=20mA	--	120	--	Deg
VF	IF=20mA	3.0	3.2	3.4	V
IV	IF=20mA	1500	1600	1700	mcd
IR	Vr=5V	--	--	10	uA
WL	IF=20mA	520	522	525	NM

Notice:

1. The photoelectric performance level of the product is determined by our company, and there may be differences in the photoelectric performance of different levels of products. Customers are requested to decide on their own usage methods based on their own usage conditions.

2. The measurement tolerance for luminous intensity is $\pm 10\%$.

3. The measurement tolerance for forward voltage is $\pm 0.05V$.

4. The measurement tolerance for color temperature is ± 0.015 .

5. We continuously strive to improve the performance of LED products.

If there are any changes in specifications, we will notify you without further notice

Application precautions

Characteristic:

This document mainly introduces to customers and users how to better use our SMD LED products

Description:

Generally speaking, SMD LEDs have the same usage as general semiconductors. When using our company's SMD LED products, please follow the following usage methods to protect the SMD LED products.

1. Cleaning: Do not use unknown chemical liquids to clean SMD LEDs, as unknown chemical liquids may damage SMD LEDs. When cleaning is necessary, immerse the SMD LED in alcohol and let it dry naturally for 15 minutes at normal room temperature for less than 1 minute before starting use.

2. Anti moisture packaging: To avoid moisture absorption during transportation and storage, SMD LED packaging is packaged in moisture-resistant aluminum packaging bags, which contain desiccants and humidity cards. The desiccants mainly control the humidity inside the packaging bags, while the humidity cards mainly monitor the humidity inside the packaging bags.

3. Storage:

A. After sealing the packaging bag, the storage conditions are temperature 30°C, humidity $60\% \text{ RH}$, and storage period is 15 days. When the shelf life is exceeded, it needs to be re baked.

B. Before opening the packaging, please check the packaging bag for air leakage. If there is any air leakage, please bake it again before use.

After opening, please use under the following conditions: temperature 30°C, humidity below 60% RH; If the usage time exceeds 24 hours, the following baking treatment must be performed before use.

C. Baking conditions: The product is baked in an oven at a temperature of $70^{\circ}\text{C} \pm 5^{\circ}\text{C}$; Relative humidity $\leq 10\% \text{ RH}$, time: 24 hours.

Take the product out of the packaging bag and bake it. Do not open the oven door during the baking process.

4. Welding:

1). Manual welding operation

a. The soldering iron used must be less than 25W, the soldering iron temperature must be maintained below 300°C , and the welding time cannot exceed 2 seconds.

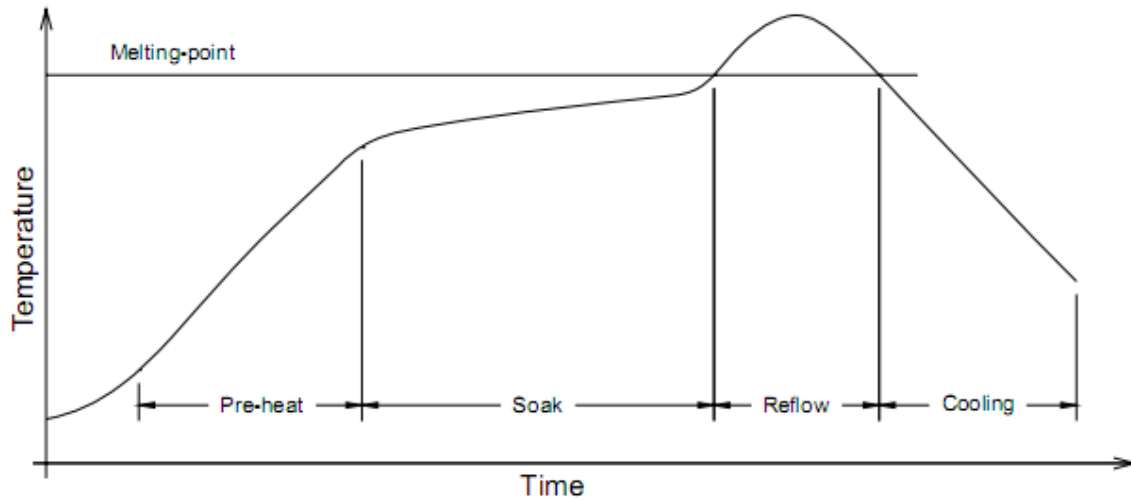
b. The soldering iron should not come into contact with the silicone part.

c. After welding, let it cool down to a temperature below 40°C before packaging.

2). Over reflow soldering welding temperature is lower than 240°C

Reflow soldering

a. Refer to the following for the temperature curve of reflow soldering:



Soldering agent: with lead and tin	Soldering agent: without lead and tin
Temperature rise slope=4°C/s maximum	Temperature rise slope=4°C/s maximum
Preheating temperature= 100°C ~150°C	Preheating temperature= 150°C ~200°C
Preheating time=100s maximum	Preheating time=100s maximum
The slope of temperature decrease is 6°C/s maximum	The slope of temperature decrease is 6°C/s maximum
Peak temperature = 230°C maximum	Peak temperature = 250°C maximum
The time at peak temperature $\pm 5^\circ\text{C}$ should not exceed 10 seconds	The time at peak temperature $\pm 5^\circ\text{C}$ should not exceed 10 seconds
The time for a temperature exceeding 183°C cannot exceed 80 seconds	The time for a temperature exceeding 217°C cannot exceed 80 seconds

b. After welding is completed, do not modify the welding surface. If modifications are necessary, they must be made without damaging the SMD LED.

c. Reflow soldering should be completed in one time, not multiple times.

d. After soldering, the circuit board cannot be packaged immediately. It can only be packaged after Free cooling.

5. Electrostatic discharge and impulse current

a. Electrostatic discharge (ESD) or pulse current (EOS) may damage SMD LEDs.

b. Before proceeding with SMD LED production, it is necessary to wear static wrists, static shoes, or anti-static gloves.

c. All mechanical equipment must be grounded.

6. Heat treatment

The heat treatment of SMD products should be carefully considered in the design of SMD circuits, and the current should be appropriately reduced. Please refer to the current temperature corresponding curve in the specifications of each product for specific details