

## CHANZON 100F5T-YT-WH-BL

# Chanzon 5mm Blue LED Diode Lights Instruction Manual

Brand: CHANZON | Model: 100F5T-YT-WH-BL

## INTRODUCTION

This manual provides essential information for the safe and effective use of your Chanzon 5mm Blue LED Diode Lights. These are clear round transparent light-emitting diodes designed for various electronics projects and lighting applications. Each pack contains 100 pieces, offering super bright blue illumination at DC 3V 20mA.



Image: A pack of 100 Chanzon 5mm Blue LED Diodes, showcasing the clear transparent lens, along with an individual LED and an example of its bright blue light.

## SETUP

Before connecting the LEDs, ensure your power source matches the specified voltage and current requirements to prevent damage. These LEDs are designed for DC 3 Volt operation with a typical current of 20 mA.

### Polarity

LEDs are polarized components, meaning they must be connected in the correct orientation. Incorrect polarity will prevent the LED from lighting up and could potentially damage it if excessive voltage is applied.

- **Anode (+):** The longer lead of the LED. This connects to the positive terminal of your power supply.
- **Cathode (-):** The shorter lead of the LED. This connects to the negative (ground) terminal of your power supply.



Image: A detailed view of a single 5mm LED diode, highlighting its two leads. The longer lead is the anode (+), and the shorter lead is the cathode (-).

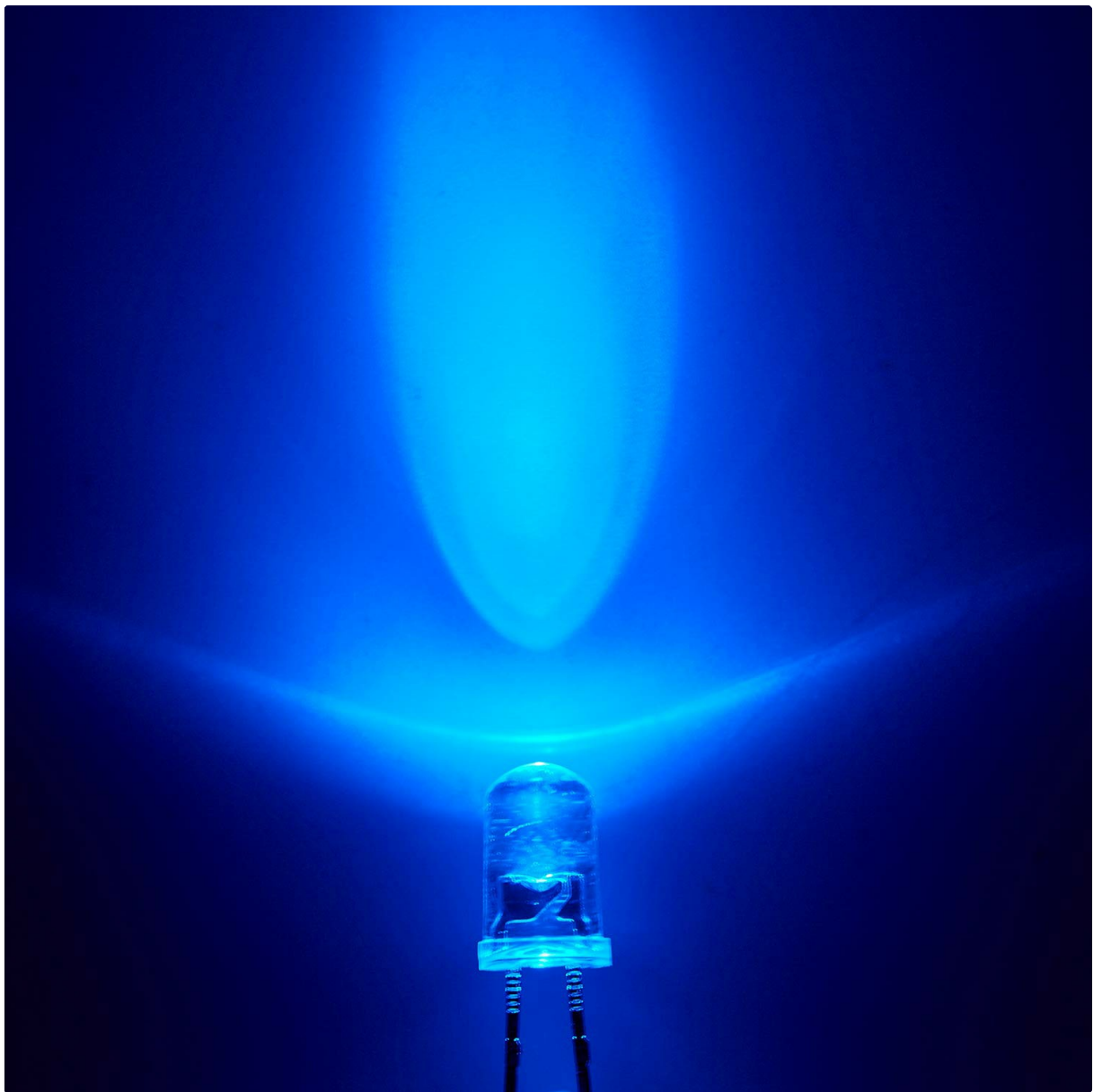


Image: A Chanzon 5mm Blue LED diode illuminated, demonstrating its bright blue light output in a low-light environment.

## OPERATING INSTRUCTIONS

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These 5mm blue LEDs operate optimally at a forward voltage of 3 Volts and a forward current of 20 mA. It is recommended to use a current-limiting resistor in series with the LED to protect it from excessive current, especially when using a power supply higher than 3V. Consult an LED resistor calculator for appropriate resistor values based on your power supply voltage.

## Typical Applications

- DIY PCB Circuits
- Arduino Projects and Experiments
- Indicator Lights
- Hobby Projects
- Educational Electronics

Your browser does not support the video tag.

Video: An official Chanzon video demonstrating various 3mm and 5mm LED diode lights, including clear and diffused lens types, and their application on a breadboard for electronics projects.

SPECIFICATIONS

Detailed technical specifications for the Chanzon 5mm Blue LED Diode Lights:

Attribute	Value
Product Type	LED Diode Lights
Size	5mm Round Top
Color	Blue (450nm-455nm)
Lens Type	Clear Transparent
Forward Voltage (Vf)	DC 3 Volt (3.0-3.2V)
Forward Current (If)	20 mA
Viewing Angle	30 degrees
Luminous Intensity	7000-8000mcd
Pin Configuration	Through Hole DIP 2-pins
Polarity	Anode (Longer Part)   Cathode (Shorter Part)
Material	Copper
Product Dimensions	6.3 x 5.51 x 0.71 inches (packaging)
Item Model Number	100F5T-YT-WH-BL

5mm Clear Lens (IF=20mA)	Wavelength	Luminous intensity	Forward voltage	Viewing Angle
White	6000-9000K	12000-14000mcd	3.0-3.2V	30°
Red	620-625nm	2000-3000mcd	2.0-2.2V	30°
Green	515-525nm	15000-18000mcd	3.0-3.2V	30°
Blue	450-455nm	7000-8000mcd	3.0-3.2V	30°
Yellow	588-592nm	1500-2000mcd	2.0-2.2V	30°
Warm White	2800-3000K	14000-16000mcd	3.0-3.2V	30°
Yellow-green	570-575nm	500-700mcd	2.0-2.2V	30°
Orange	602-610nm	1500-2000mcd	2.0-2.2V	30°
Purple (UV)	395-400nm	300-400mcd	3.0-3.4V	30°
Pink	/	7000-8000mcd	3.0-3.2V	30°

Image: A table detailing the optical and electrical characteristics of 5mm clear lens LEDs, including wavelength, luminous intensity, forward voltage, and viewing angle for different colors.

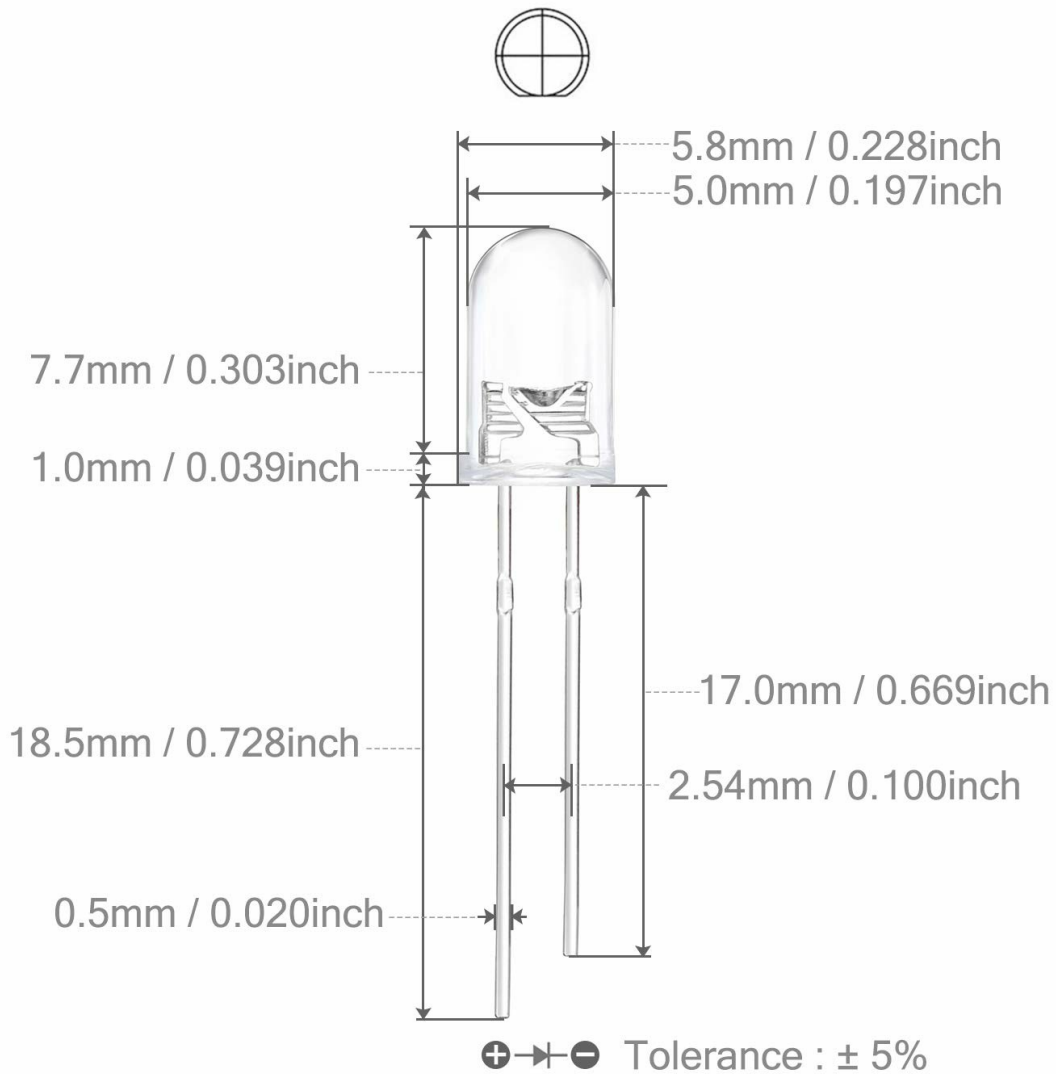


Image: A technical drawing illustrating the precise dimensions of a 5mm LED diode, including lens diameter, lead length, and spacing, with measurements provided in both millimeters and inches.

## MAINTENANCE

Chanzon LED diodes are designed for long-term reliability with minimal maintenance. Keep them stored in a dry, cool environment away from direct sunlight and extreme temperatures when not in use. Avoid bending the leads repeatedly or with excessive force, as this can cause internal damage. Ensure proper heat dissipation in high-density applications to maintain optimal performance and lifespan.

## TROUBLESHOOTING

### • LED Not Lighting Up:

- Check polarity: Ensure the longer lead (anode) is connected to positive and the shorter lead (cathode) to negative.
- Verify power supply: Confirm the power supply is providing the correct voltage (DC 3V) and sufficient current.
- Check connections: Ensure all connections are secure and there are no loose wires or cold solder joints.
- Resistor value: If using a resistor, ensure its value is correct for your power supply voltage and the LED's current requirements. An incorrect resistor can prevent the LED from lighting or cause it to burn

out.

- Damaged LED: Test the LED with a known good power source and resistor. If it still doesn't light, the LED may be damaged.

- **LED is Dim:**

- Insufficient current: The LED may not be receiving enough current. Check your power supply and resistor value.
- Voltage drop: Ensure there isn't excessive voltage drop across other components in your circuit.

- **LED Burns Out Quickly:**

- Excessive current/voltage: The LED is likely receiving too much current or voltage. Always use a current-limiting resistor.
- Incorrect polarity: While usually preventing light, prolonged incorrect polarity with high voltage can damage the LED.

## WARRANTY AND SUPPORT

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For any questions, technical assistance, or support regarding your Chanzon 5mm Blue LED Diode Lights, please refer to the official Chanzon store or contact their customer service directly. While specific warranty details are not provided in this manual, Chanzon is committed to providing quality products and support to its customers.

Visit the [CHANZON Store](#) for more information and product offerings.