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› DiCUNO 100pcs 5mm RGB Multicolor Fast Blinking LED Diode Instruction Manual

DiCUNO US-DIODE-5MM-7T-F-100P

DiCUNO 5mm RGB Multicolor Fast Blinking LED Diode

INSTRUCTION MANUAL - MODEL: US-DIODE-5MM-7T-F-100P

1. Introduction and Overview

The DiCUNO 5mm RGB Multicolor Fast Blinking LED Diodes are versatile electronic components designed for various lighting projects and circuit applications. Each diode features a clear round lens and is capable of rapidly transitioning through 7 vibrant colors, creating a dynamic visual effect. This package contains 100 pieces, providing ample supply for multiple projects. These LEDs are ideal for hobbyists, students, and professionals working on DIY electronics, signal indicators, and decorative lighting.

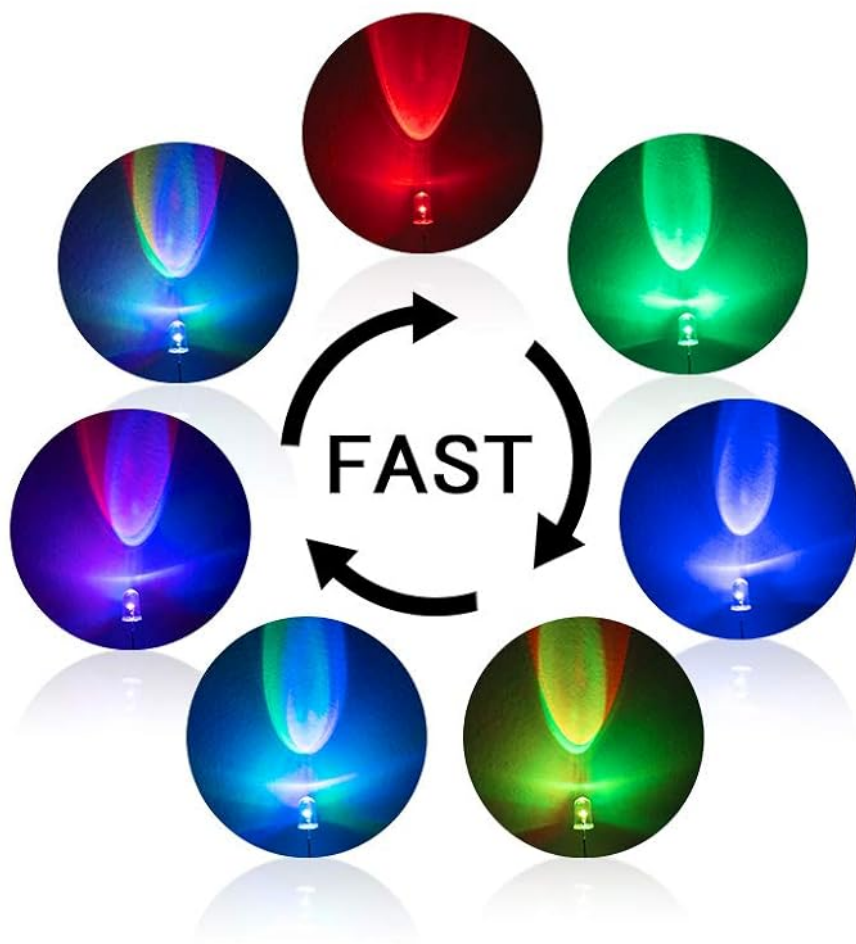


Image 1.1: DiCUNO 5mm RGB Fast Blinking LED Diode and its color-changing sequence.

2. Product Features

- **Fast Flashing:** Each LED diode features a rapid blinking and color transition sequence through 7 distinct colors.
- **Compact Design:** Standard 5mm round head with a clear diffused lens.
- **Standard Pin Configuration:** Two pins, with the longer pin indicating the anode (positive terminal).
- **Optimal Brightness:** Provides an average brightness of 4000-6000mcd.
- **Wide Beam Angle:** Offers a 30° beam angle for broad illumination.
- **Versatile Application:** Suitable for flickering indicators, DIY LED projects, science experiments, car decorations, and signal indicators.



Image 2.1: Detailed illustration of the fast color-changing sequence.

3. Setup Instructions

Proper setup is crucial for the longevity and correct operation of your LED diodes. Please follow these steps carefully:

1. **Identify Polarity:** The longer pin of the LED is the anode (positive, +) and the shorter pin is the cathode (negative, -).
2. **Determine Power Source:** These LEDs operate with a forward voltage of 3.0-3.4V and an amperage capacity of 20mA. Ensure your power source provides a stable DC voltage within this range.
3. **Calculate Current-Limiting Resistor:** To prevent damage from overcurrent, a current-limiting resistor is essential when connecting the LED to a voltage source higher than its forward voltage. Use Ohm's Law: $R = (V_s - V_f) / I$, where V_s is the supply voltage, V_f is the LED's forward voltage (use 3.4V for calculation), and I is the desired current (0.020A or 20mA).
Example: For a 5V power supply: $R = (5V - 3.4V) / 0.020A = 1.6V / 0.020A = 80 \text{ ohms}$. A common resistor value like 82 ohms or 100 ohms would be suitable.
4. **Connect the Circuit:** Connect the anode (longer pin) of the LED to the positive terminal of your power source, through the calculated current-limiting resistor. Connect the cathode (shorter pin) to the negative terminal (ground) of your power source.
5. **Test Connection:** Before finalizing your project, briefly apply power to ensure the LED lights up and functions as expected.

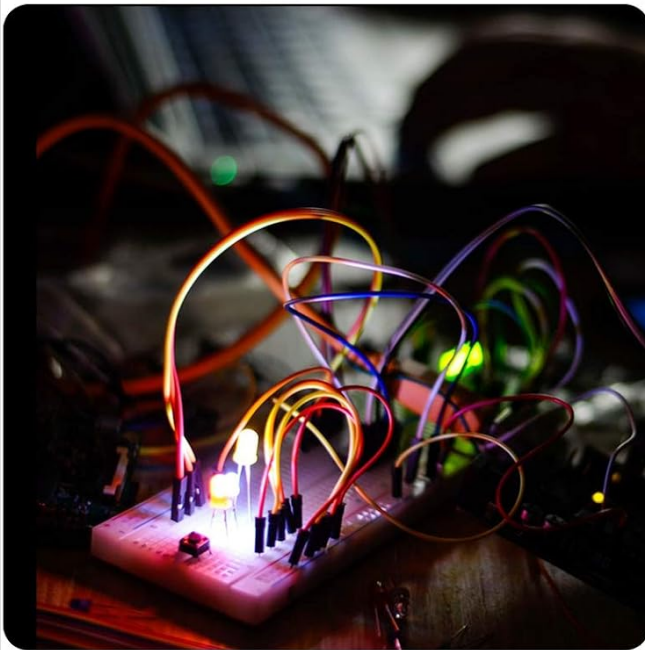


Image 3.1: Examples of LED applications, including a breadboard circuit for testing.

4. Operating Instructions

Once correctly set up and connected to a compatible power source, the DiCUNO 5mm RGB Multicolor Fast Blinking LED Diodes will automatically begin their fast flashing sequence. No additional programming or external control is required for the color-changing effect, as it is integrated within the diode itself.

- **Automatic Color Cycling:** The LED will cycle through its 7 colors (Red, Green, Blue, Yellow, Cyan, Magenta, White) at a fast pace.
- **Continuous Operation:** The diodes are designed for continuous operation within their specified voltage and current limits.

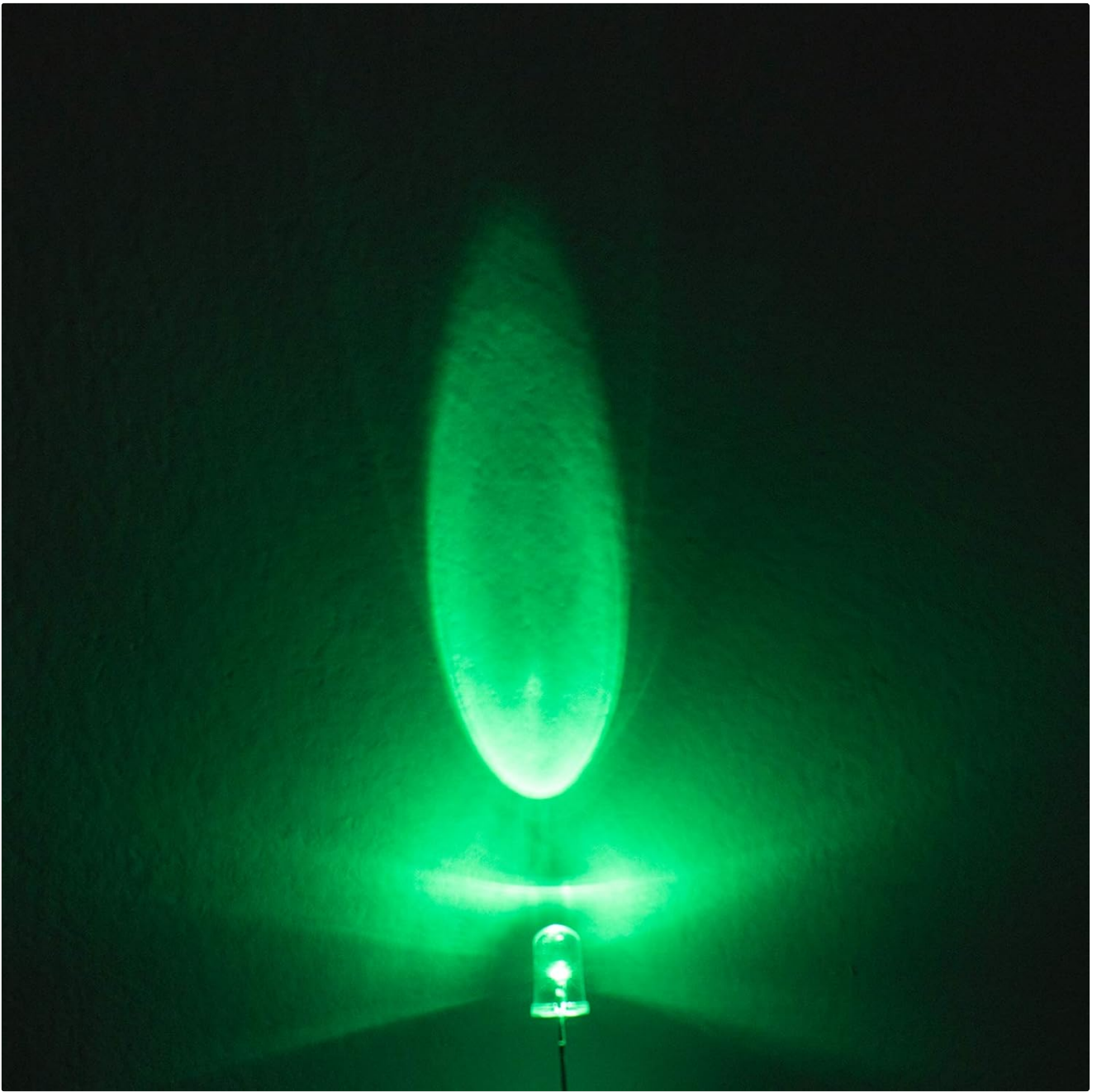


Image 4.1: Example of a single LED emitting green light.

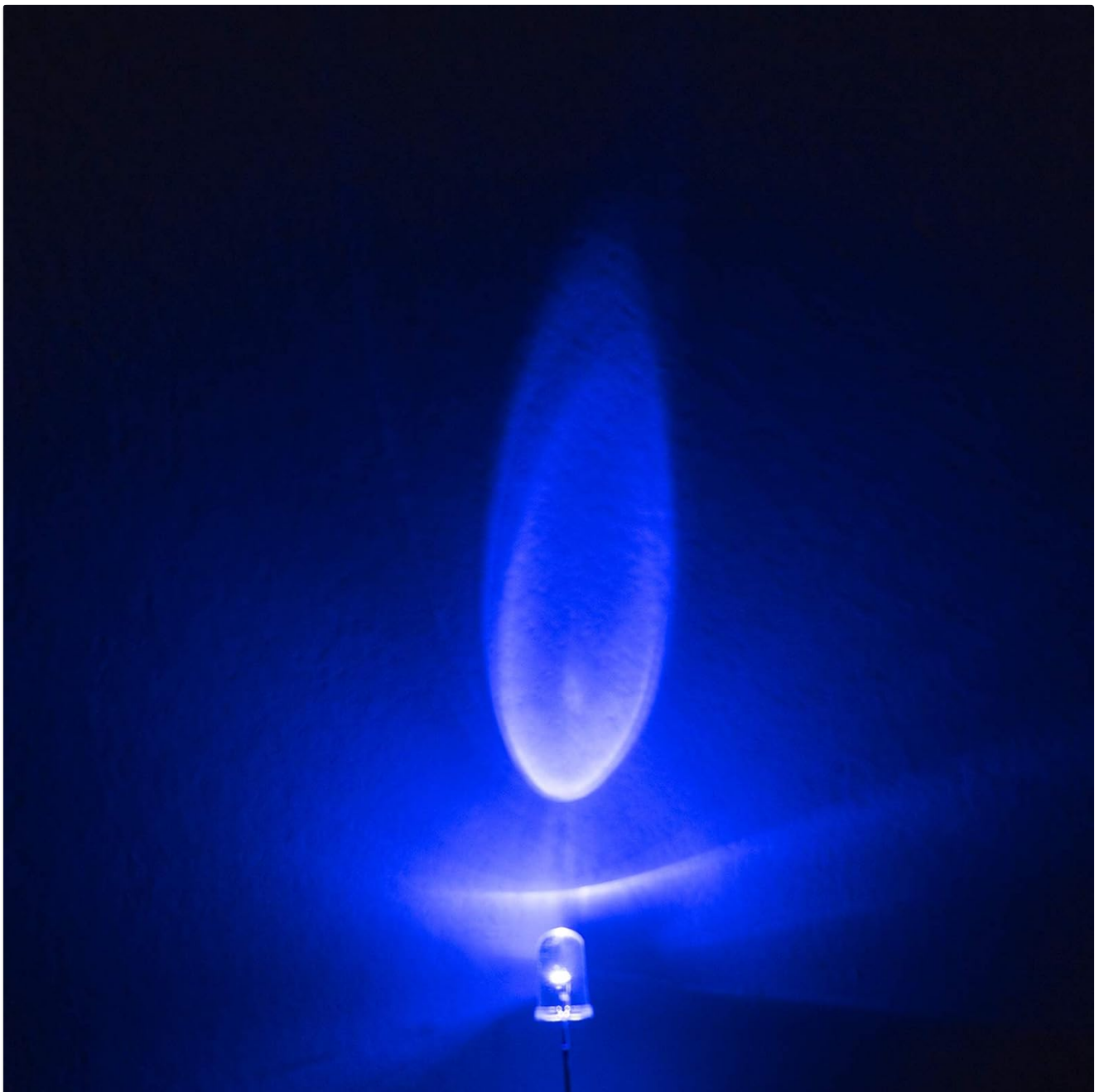


Image 4.2: Example of a single LED emitting blue light.

5. Maintenance

DiCUNO LED diodes are designed for durability and require minimal maintenance. Adhering to the following guidelines will help ensure their long lifespan:

- **Proper Handling:** Handle the diodes by their body, avoiding excessive bending or stress on the leads, especially near the base of the diode.
- **Storage:** Store unused diodes in a dry, cool environment, away from direct sunlight and extreme temperatures. The original packaging box is suitable for storage.
- **Cleaning:** If necessary, gently wipe the clear lens with a soft, dry cloth. Avoid using abrasive cleaners or solvents.
- **Environmental Conditions:** Ensure the LEDs are used within appropriate temperature and humidity ranges to prevent condensation or overheating.



Image 5.1: DiCUNO LED diode packaging for proper storage.

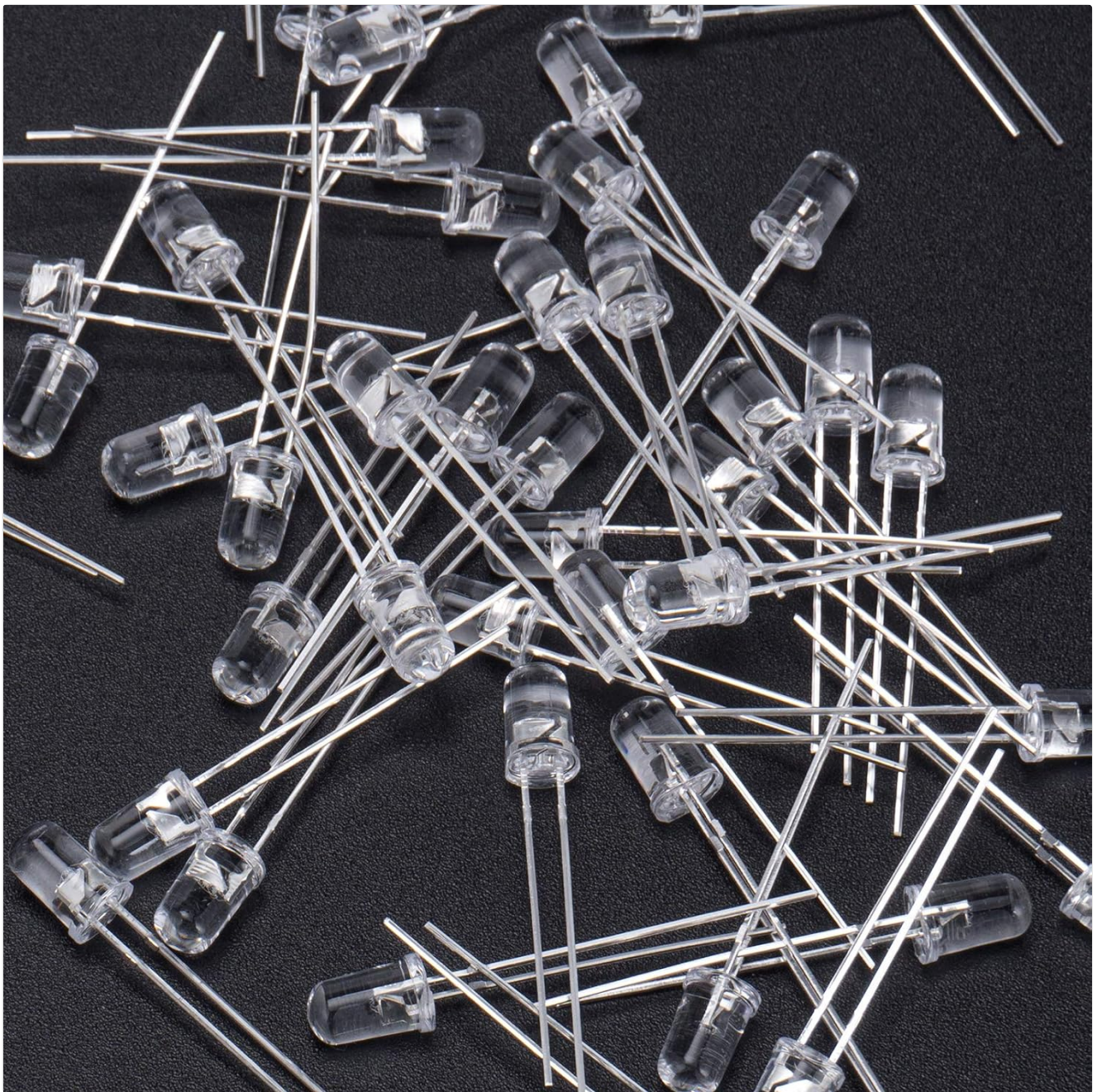


Image 5.2: Close-up of the LED diodes.

6. Troubleshooting

If you encounter issues with your DiCUNO LED diodes, consider the following common troubleshooting steps:

Problem	Possible Cause	Solution
LED does not light up.	Incorrect polarity.	Ensure the longer pin (anode) is connected to positive and the shorter pin (cathode) to negative/ground.
LED does not light up.	Insufficient or no power supply.	Verify power supply is on and providing 3.0-3.4V DC. Check connections.
LED does not light up.	Incorrect current-limiting resistor value or missing resistor.	Ensure a resistor is used and its value is correctly calculated for your supply voltage (e.g., 80-100 ohms for 5V).

Problem	Possible Cause	Solution
LED is dim or flickers erratically.	Unstable power supply or insufficient current.	Use a stable power supply. Check if the resistor value is too high, limiting current excessively.
LED burns out quickly.	Overcurrent due to no resistor or too low resistor value.	Always use a current-limiting resistor. Recalculate and use the correct resistor value. Ensure supply voltage does not exceed 3.4V without a resistor.

7. Specifications

Detailed technical specifications for the DiCUNO 5mm RGB Multicolor Fast Blinking LED Diode:

Manufacturer: DiCUNO
Part Number: US-DIODE-5MM-7T-F-100P
Item Model Number: US-DIODE-5MM-7T-F-100P
Head Shape: Round
Head Diameter: 5mm (5.5mm at base)
Head Height: 8.5mm
Longer Pin Length: 27.5mm
Total Length: 36mm
Style: Fast Flash
Color: RGB Multicolor (transitions through 7 colors)
Material: Copper (leads)
Forward Voltage: 3.0-3.4 Volts DC
Amperage Capacity: 20mA (0.020 Amps)
Average Brightness: 4000-6000mcd
Beam Angle: 30°
Item Weight: 1.06 ounces (for 100pcs)
Product Dimensions: 6.54 x 7.32 x 11.97 inches (packaging)
Type of Bulb: LED
Batteries Included?: No
Batteries Required?: No
Date First Available: March 24, 2021

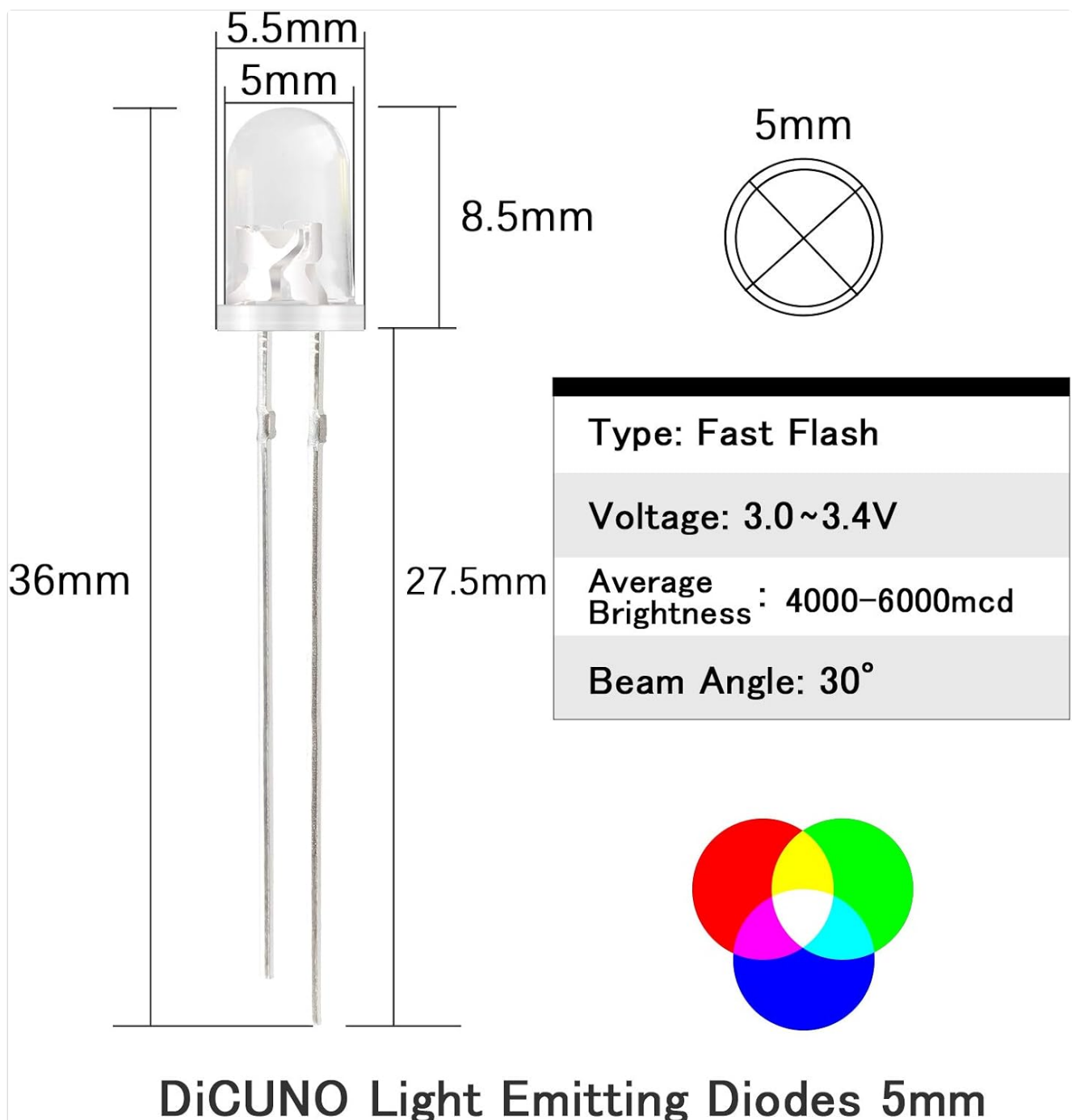


Image 7.1: Detailed dimensions and specifications of the LED diode.

8. Warranty and Support

DiCUNO is committed to customer satisfaction. Your purchase of the 5mm RGB Multicolor Fast Blinking LED Diodes is backed by the following:

- **Refund Policy:** DiCUNO offers a 3-month refund period from the date of purchase.
- **Warranty:** A 1-year warranty is provided to cover any manufacturing defects or performance issues under normal use.

For any questions, technical assistance, or warranty claims, please contact DiCUNO customer support through the retailer's platform or the official DiCUNO website. Please have your purchase details and model number (US-DIODE-5MM-7T-F-100P) ready when contacting support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question