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› EDGELEC 5mm Green Blinking LED Diodes Instruction Manual

EDGELEC ED_YT05_BLK-G

EDGELEC 5mm Green Blinking LED Diodes Instruction Manual

Model: ED_YT05_BLK-G

INTRODUCTION

This manual provides comprehensive instructions for the safe and effective use of your EDGELEC 5mm Green Blinking LED Diodes. These diodes are designed for various electronic projects requiring a blinking light source. Please read this manual thoroughly before use.

PRODUCT OVERVIEW

Your package contains 100 pieces of 5mm Green Blinking LED Diodes and 100 pieces of 430ohm 1/4 Watt Metal Film Resistors.

- **LED Diodes:** 5mm clear round lens, green blinking light, 29mm long leads.
- **Resistors:** 430ohm, 1/4 Watt Metal Film, $\pm 1\%$ Tolerance, included for use with DC 6-12V power sources.



Figure 1: Contents of the package, showing the 5mm green blinking LED diodes and the included 430ohm resistors.

SETUP AND CONNECTION

Proper connection is crucial for the functionality and longevity of the LEDs. LEDs are polarity-sensitive; the longer lead is the anode (+) and the shorter lead is the cathode (-).



Figure 2: Illustration of LED leads, highlighting the 29mm long lead for easy integration into circuits.

Connecting with Resistors (for DC 6-12V)

For power sources between 6V and 12V DC, the included 430ohm resistors must be used in series with the LEDs to limit current and prevent damage. Connect one end of the resistor to the positive terminal of your power supply, and the other end to the anode (longer lead) of the LED. Connect the cathode (shorter lead) of the LED to the negative terminal of your power supply.

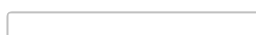


Figure 3: The included 430ohm resistors, essential for current limiting in higher voltage applications.

Direct Connection (for DC 3.0-3.2V)

If your power supply is within the LED's forward voltage range of 3.0V to 3.2V DC, resistors are generally not required. However, always ensure the current (IF) does not exceed 20mA to prevent overheating and damage.

OPERATING PARAMETERS

These LEDs are designed for consistent blinking performance. Key operating parameters are:

- **Blinking Frequency:** 1.5Hz
- **Forward Voltage (Vf):** 3.0V - 3.2V (at IF=20mA)
- **Forward Current (If):** 20mA (typical)
- **Power Consumption:** 0.06 Watts
- **Luminance:** Brighter Up To +20%
- **Wavelength:** 520nm-525nm (Green)
- **Viewing Angle:** 30°



Figure 4: Detailed electrical and optical characteristics for various LED colors, including green.

MAINTENANCE AND STORAGE

To ensure the longevity and performance of your LEDs:

- **Soldering Conditions:**
 - Manual Soldering: Less than 3 seconds with 482°F-527°F (250°C-275°C).
 - Reflow Soldering: Less than 5 seconds with 500°F (260°C).
- **Storage:** Store in a dry environment and keep away from fire or high temperatures.
- **Handling:** Avoid excessive bending of the leads close to the LED body to prevent internal damage.

TROUBLESHOOTING

Problem	Possible Cause	Solution
LED does not light up.	Incorrect polarity; insufficient voltage; open circuit; damaged LED.	Check lead polarity (+/-); verify power supply voltage; inspect connections; replace LED if damaged.
LED is dim or flickers erratically.	Insufficient current; incorrect resistor value; unstable power supply.	Ensure adequate current (20mA); verify resistor value is appropriate for voltage; use a stable power source.
LED burns out quickly.	Excessive current; no resistor used with higher voltage; reverse voltage applied.	Always use appropriate current-limiting resistors; ensure correct polarity.

SPECIFICATIONS

Parameter	Value
Model	ED_YT05_BLK-G
LED Type	5mm Blinking LED Diode
Color	Green
Lens Type	Clear Round Lens
Lead Length	29mm
Blinking Frequency	1.5Hz
Forward Voltage (Vf)	3.0V - 3.2V (IF=20mA)
Power Consumption	0.06 Watts
Wavelength	520nm-525nm
Viewing Angle	30°
Resistor Included	100pcs 430ohm (for DC 6-12V) 1/4 Watt Metal Film Resistors
Product Dimensions	0.21 x 0.2 x 1.4 inches (approx. 5.3 x 5 x 35.5 mm)
Material	Polycarbonate



Figure 5: Technical drawing illustrating the precise dimensions of the 5mm LED diode.

WARRANTY AND SUPPORT

For any questions, technical assistance, or support regarding your EDGELEC LED Diodes, please contact EDGELEC customer service through the retailer's platform where the product was purchased. Please refer to your purchase receipt or order details for specific warranty information.

For more information on other EDGELEC LED models, please visit the official EDGELEC store or search "EDGELEC Diodes" on your preferred e-commerce platform.

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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.

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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