

PRESS RELEASE

Kingbright introduces new Full Color SMD LED KPGF-0607GBRC-05 – compact RGB solution for miniature and wearable applications

Issum, October 2025 – Kingbright expands its portfolio of high-performance SMD LEDs with the introduction of the new **KPGF-0607GBRC-05**, an ultra-compact **Full Color Surface Mount LED** measuring only **0.65 × 0.65 × 0.25 mm**. This innovative RGB LED integrates three separate chips (InGaN for green and blue, AlGaInP for red) in a single miniature package, enabling the creation of virtually any color within the visible spectrum.

High performance in a miniature package

The KPGF-0607GBRC-05 combines **low power consumption**, **high luminous efficiency**, and **excellent color uniformity**. With a typical brightness of **250 mcd (green)**, **50 mcd (blue)**, and **30 mcd (red)** at just 5 mA, it delivers outstanding intensity for miniature displays, status indicators, and compact lighting applications. Its **water-clear lens** ensures **optimal light output with a wide 140° viewing angle**, making it ideal for uniform backlighting and smooth color transitions.

Durable and versatile

Designed for reliability, the LED operates within a **temperature range of –40 °C to +85 °C** and meets both **RoHS** and **halogen-free** requirements. Featuring a **moisture sensitivity level (MSL) of 3** and **electrostatic discharge protection up to 3 kV (HBM)**, it is well-suited for demanding production environments. With a **power dissipation of only 24–35 mW per chip** and a maximum forward voltage of **3.3 V (green/blue)** and **2.3 V (red)**, the KPGF-0607GBRC-05 offers an efficient and durable solution for energy-conscious designs.

Target applications

- Status indicators and backlighting
- Smart home and IoT devices
- Wearables and portable electronics
- Healthcare and medical technology
- Illuminated control panels and miniature displays

SMD-friendly design for modern assembly

With its ultra-thin 0.25 mm profile and standardized **reflow-solderable SMD package**, the KPGF-0607GBRC-05 can be easily integrated into high-density PCB layouts. Supplied in **reels of 4,000 units**, it supports **lead-free reflow soldering** according to JEDEC standards, with up to two reflow cycles at a maximum temperature of 260 °C.

About Kingbright

Kingbright is one of the world's leading manufacturers of LEDs and optoelectronic components, with over 40 years of experience in product development, manufacturing, and quality assurance. The company stands for innovation, precision, and sustainability in LED technology, delivering reliable lighting solutions for industrial, automotive, medical, and consumer applications.

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