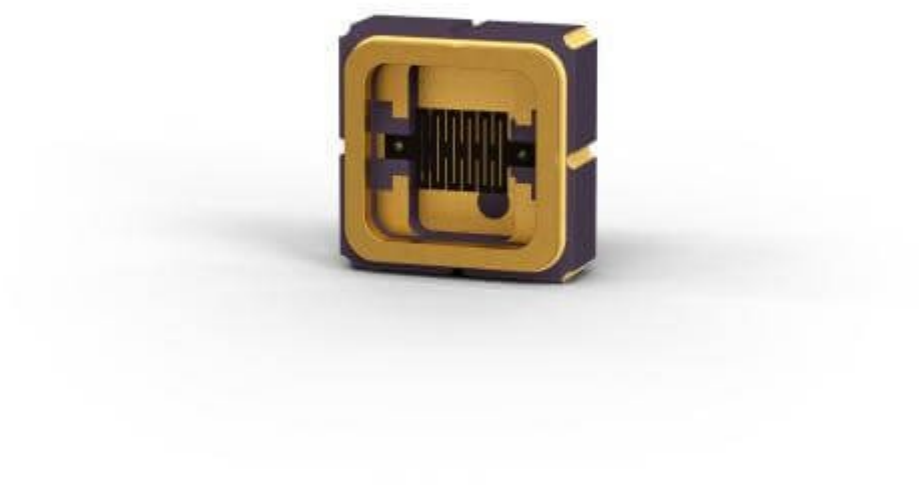
# Infrared-Emitter HIS100smd-0



Thermal infrared emitter in standard (3x3) mm² SMD package

HISsmd series emitters are small, powerful infrared radiation sources that meet the demands for reliable miniaturized gas sensors and offer a wide range of new application scenarios. The low energy consumption, the high efficiency and the small size allow the use in portable, battery-powered, and mobile applications.

**Product Name:** HIS100smd-0
**Package:** SMD 3 x 3 mm²
**Radiating element area:** 1 mm²
**Radiating element emissivity:** > 0.9
**Radiating element temperature:** 600 °C at 290 mW
**Optical output power:** up to 30 mW
**Max. electrical power (DC):** 290 mW
**Max. electrical voltage:** 1.7 V
**Max. electrical current:** 170 mA
**Electrical resistance:** 9...10 Ω
**Modulation frequency:** 10 Hz

**Filter/Window:** None
**Wavelength range:** 2 to 20 µm
**Filling gas:** None
**Product code:** 154106

# Product details

## HISsmd series

## Miniaturized infrared sources in SMD housing

**HIS***smd* series emitters are small, powerful infrared radiation sources that meet the demands for reliable miniaturized gas sensors and offer a wide range of new application scenarios. The low energy consumption, the high efficiency and the small size allow its use in portable, battery-powered, and mobile applicationsThe pioneering SMD package enables a fully automated production in high-volume markets.

## Key features HISsmd series

- Pulsable thermal infrared source mounted in an industry standard (3x3) mm² SMD package
- Patented nanostructured radiating element generates black-body spectrum
- Wide wavelength range enables a broad range of applications
- Highest optical output power of up to 40 mW
- Hermetically sealed, high-quality filter windows guarantee long-term stable operation and high lifetime
- SMD package allows fully automatic assembly in high-volume series

## INFRASOLID® nanostructure technology

Infrasolid’s patented nanostructure technology allows the fabrication of extremely thin and very heat-resistant black optical coatings. They are already used in our thermal infrared light sources but also in optical detector technologies and for stray light absorption in optical measurement systems. The broad spectral range of high absorption extends from UV up to far infrared wavelengths. A structuring of the black coatings can be done by photolithography to realize very small structures or local areas of blackening. The deposition is done on flat substrates. Temperature-sensitive

materials, such as plastics, can be coated using our low temperature black coating process.

## The online shop

| Quantity (pieces) | Price (per piece) |
|---|---|
| 1-4 | CHF 23.52 |
| 5-9 | CHF 19.04 |
| 10-24 | CHF 17.36 |

Stock: **5**