Infrared-Emitter HIS180smd-S



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: HIS180smd-S
Package: SMD 3 x 3 mm²
Radiating element area: 1.8 mm²
Radiating element emissivity: > 0.9
Radiating element temperature: 550 °C at 390 mW
Optical output power: up to 35 mW
Max. electrical power (DC): 390 mW
Max. electrical voltage: 2.8 V
Max. electrical current: 140 mA
Electrical resistance: 19...21 Ω
Modulation frequency: 8 Hz

Filter/Window: Si-ARC (glued)
Wavelength range: 2 to 14 µm
Filling gas: None
Product code: 154391

Product details

HISsmd series

Miniaturized infrared sources in SMD housing

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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 35.84
5-9	CHF 31.36
10-24	CHF 29.12

Stock: **3**