Infrared-Emitter HIS2000R-C300-6

Thermal infrared emitter with CaF_2 window, hermetically sealed

HIS2000R-C300-6 is a NiCr filament based thermal infrared emitter in a hermetically sealed TO-8 package with a glued CaF_2 window. This guarantees better long-term stability. The short cap with a height of 6 mm improves the optical signal performance.

Product Name: HIS2000R-C300-6
Package: TO-8
Radiating element area: 40 mm^2
Radiating element emissivity: > 0.9
Radiating element temperature: 630 °C at 2.5 W
Optical output power: up to 780 mW
Max. electrical power (DC): 2.5 W
Max. electrical voltage: 3.8 V
Max. electrical current: 660 mA
Electrical resistance: 5...6 Ω
Modulation frequency: 4 Hz
Filter/Window: CaF2 (glued)

Wavelength range: 2 to 11 µm
Filling gas: Nitrogen
Product code: 154371

Product details

HISpower series

High-power infrared sources in TO-8 housing

HIS*power* series emitters have an integrated gold-plated reflector that directs the radiation emitted from the rear filament side to the front through the housing window in order to achieve maximum efficiency and optical output power. All our emitters offer minimum drift at a constant electrical resistance. Infrasolid's infrared emitters are characterized by a very low temperature coefficient of electrical resistance. Therefore, the hot resistance and the cold resistance are almost identical which eases the electrical control of the IR sources. Infrasolid's advanced packaging technology SOLIDSEAL® allows soldered sapphire, CaF_2 and BaF_2 windows for use in a wide temperature range of -25 °C up to +85 °C.

Key features HISpower series

- Pulsable thermal infrared source mounted in an industry standard TO-8 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 1 W
- Soldered, high-quality filter windows guarantee long-term stable operation and high lifetime

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 122.08
5-9	CHF 110.88
10-24	CHF 105.28

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