

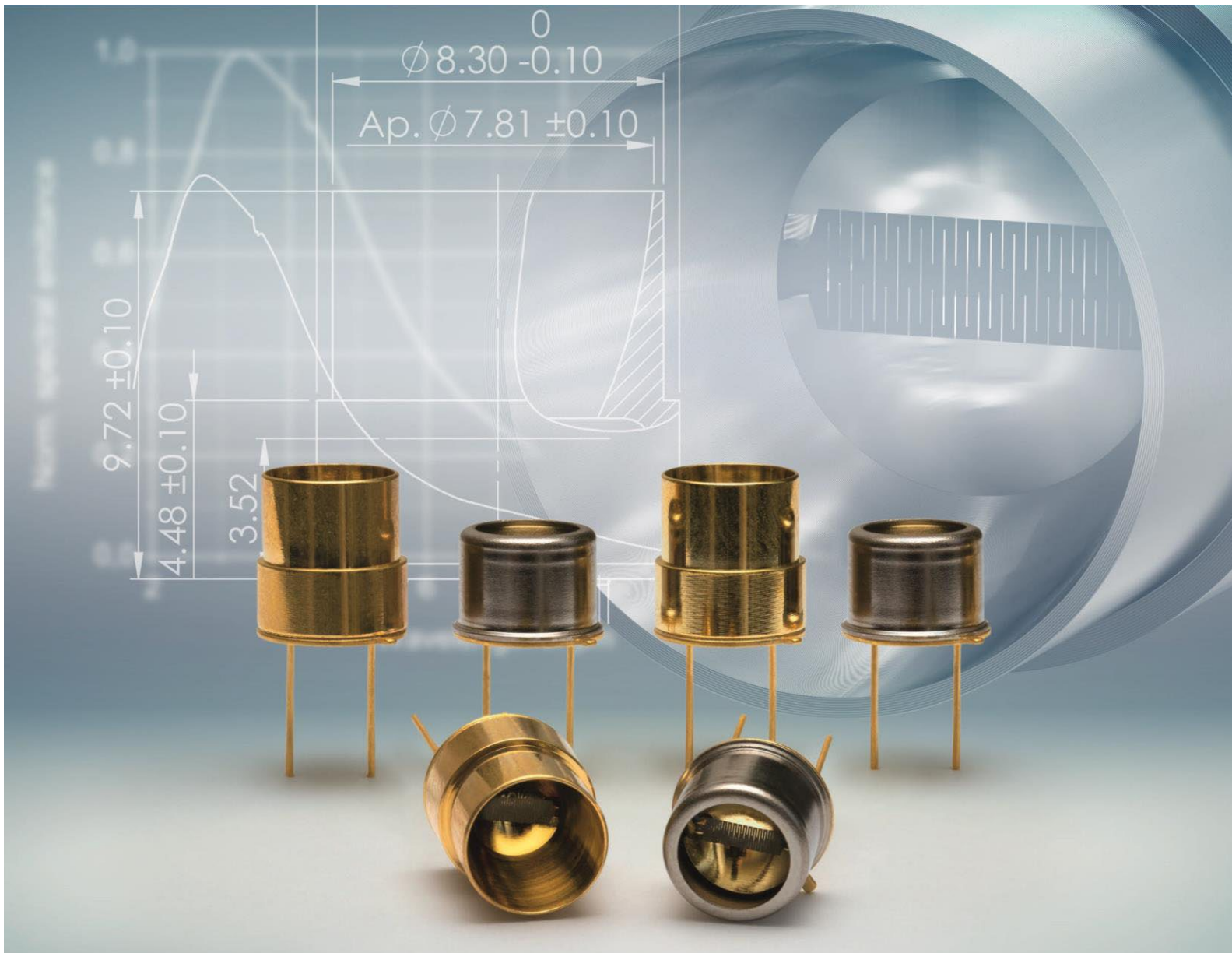


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Data Sheet

Basic series with Integrated Reflector

Thermal Infrared Emitters

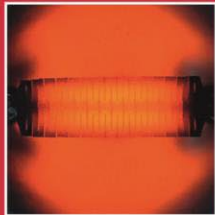
Basic Series with Integrated Reflector

Thermal Infrared Emitters

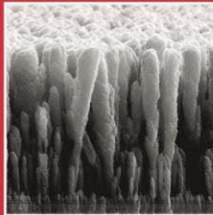
These infrared radiation sources are pulsable thermal emitters with a near black-body emittance. Based on a patented nanotechnology and a patented emitter set-up made of a high-melting metal, the free-standing monolithic radiating element and the nanostructured emitter surface offer numerous advantages in many applications.

Basic Series with Integrated Reflector emitters have an integrated reflector that directs the radiation emitted from the rear to the front in order to achieve maximum efficiency. Our open emitters offer high performance for a wide spectral measuring range

Key features



High radiant power



High efficiency



Low cost

- ✓ Pulsable thermal black-body infrared source mounted in an industry standard TO-39/TO-5 package.
- ✓ Patented nanostructured radiating element achieves up to 500% more detection signal!
- ✓ Lower radiating element temperature of 600 °C increases lifetime!
- ✓ Wide wavelength range enables a broad range of applications.

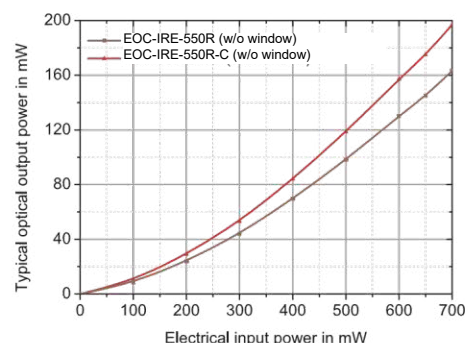
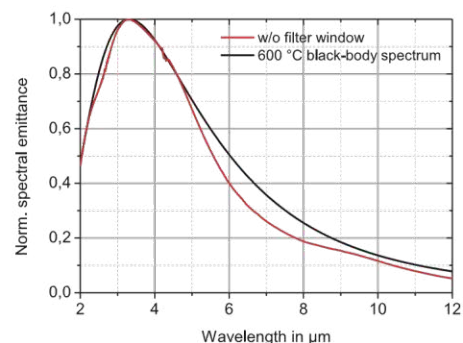
*innovative infrared sources for
gas detection & spectroscopy*

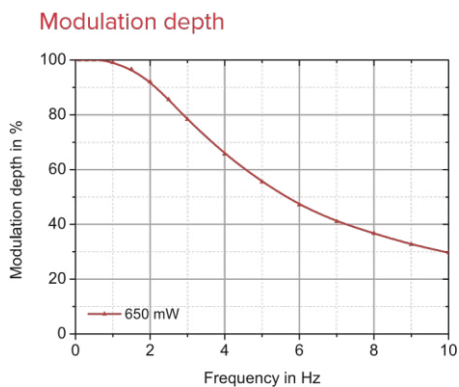
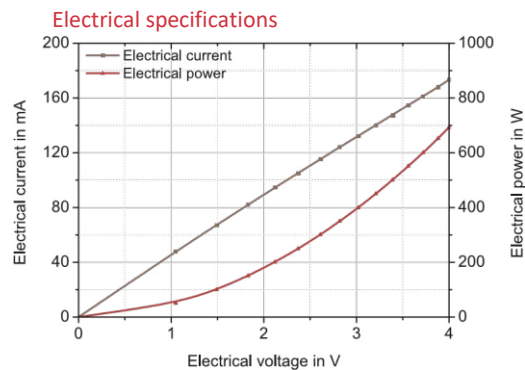
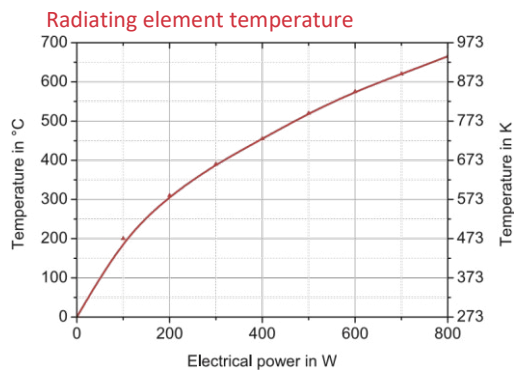
Main specifications



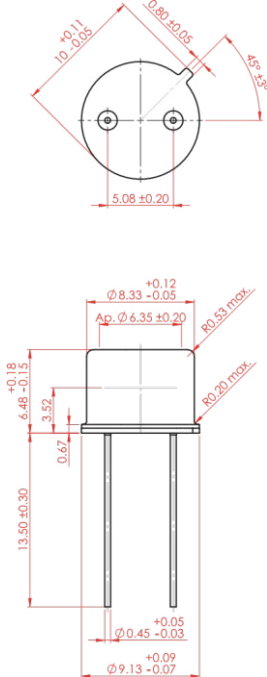
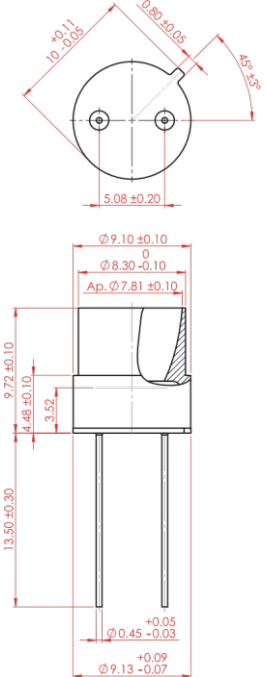
Parameter	HISbasic series
Package	TO-39 / TO-5
Radiating element area	11 mm ²
Radiating element emissivity	> 0.8
Radiating element temperature	600 °C at 650 mW
Optical output power	up to 200 mW
Max. electrical power (DC)	700 mW
Max. electrical voltage	4.0 V
Max. electrical current	175 mA
Electrical resistance	21...23 Ω
Modulation frequency*	4 Hz
Wavelength range	2 to 12 μm

* 70 % modulation depth, square wave signal, 50 % duty cycle

Optical specifications





EOC-IRE-550R	EOC-IRE-550R-C
	
 <p>Top view dimensions: $\phi 8.33 \pm 0.05$, $\phi 6.35 \pm 0.20$, 5.08 ± 0.20, 0.80 ± 0.05, $45^\circ \pm 5^\circ$, 0.11 ± 0.05.</p> <p>Side view dimensions: 13.50 ± 0.30, 6.48 ± 0.15, 3.52, 0.67, $\phi 9.13 \pm 0.07$, $\phi 0.45 \pm 0.03$, $\phi 0.45 \pm 0.03$, $R0.53 \text{ max.}$, $R0.20 \text{ max.}$.</p>	 <p>Top view dimensions: $\phi 8.33 \pm 0.05$, $\phi 6.35 \pm 0.20$, 5.08 ± 0.20, 0.80 ± 0.05, $45^\circ \pm 5^\circ$, 0.11 ± 0.05.</p> <p>Side view dimensions: 9.72 ± 0.10, 4.48 ± 0.10, 3.52, 13.50 ± 0.30, $\phi 9.13 \pm 0.07$, $\phi 0.45 \pm 0.03$, $\phi 0.45 \pm 0.03$, $\phi 9.10 \pm 0.10$, $\phi 8.30 \pm 0.10$, $\phi 7.81 \pm 0.10$, 0.</p>