

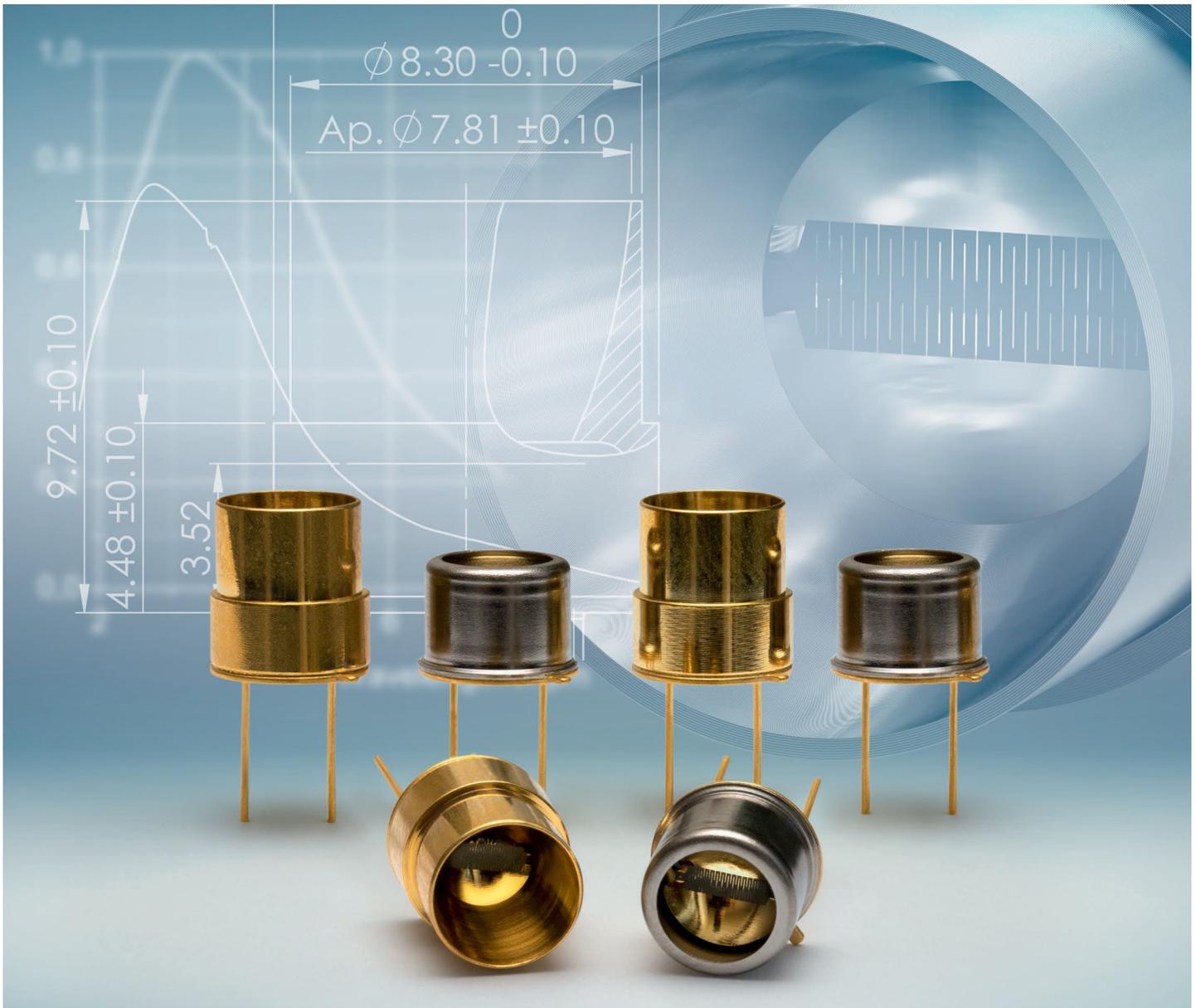


Electro Optical Components, Inc.

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Data Sheet Basic Series

EOC-IRE-550R-C

Thermal Infrared Emitter

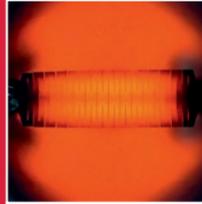
Basic Series

Thermal Infrared Emitters

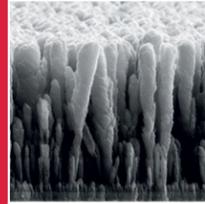
EOC's infrared radiation sources are pulsable thermal emitters with a near black-body emittance. Based on a patented nanotechnology and a patented emitter set-up made of a high-melting metal, the free-standing monolithic radiating element and the nanostructured emitter surface offer numerous advantages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

The Basic Series 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 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.

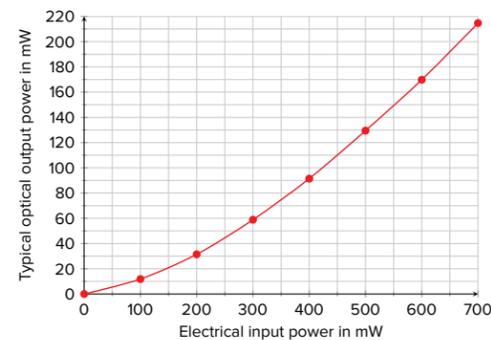
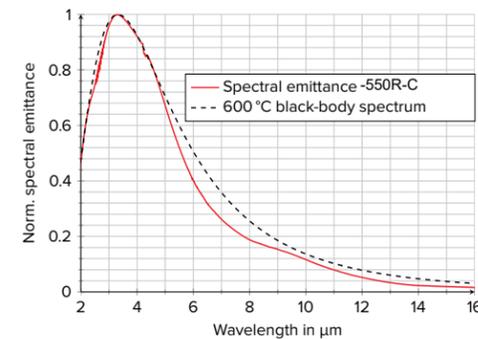
innovative infrared sources for gas detection & spectroscopy

Main specifications

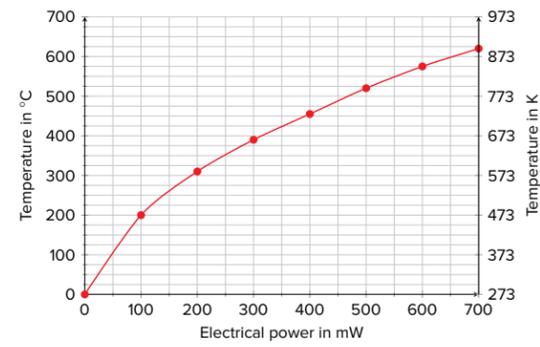
Parameter	EOC-IRE-550R-C
Package	TO-39 / TO-5
Radiating element area	11 mm ²
Radiating element emissivity	> 0.8
Radiating element temperature	600 °C at 650 mW
Optical output power	up to 215 mW
Max. electrical power (DC)	700 mW
Max. electrical voltage	4.0 V
Max. electrical current	175 mA
Electrical resistance	21...23 Ω
Modulation frequency*	6 Hz
Wavelength range	2 to 20 μm

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

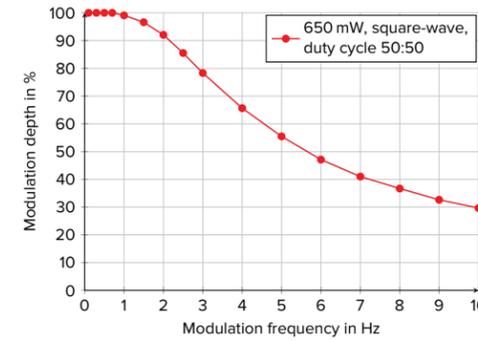
Optical specifications



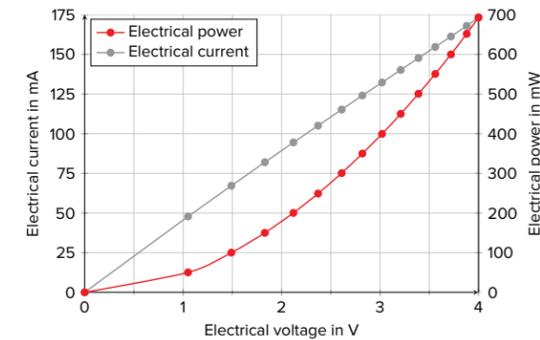
Radiating element temperature



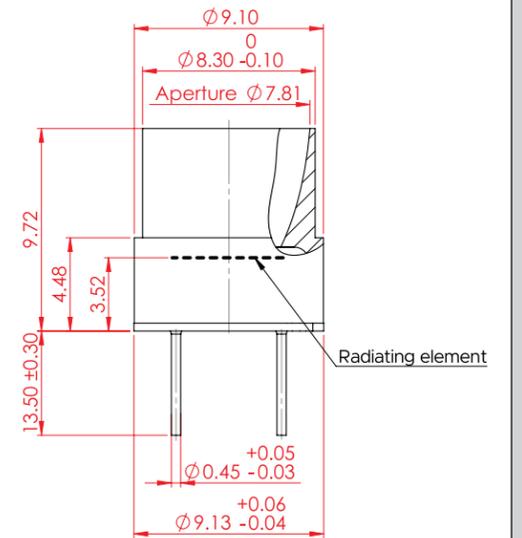
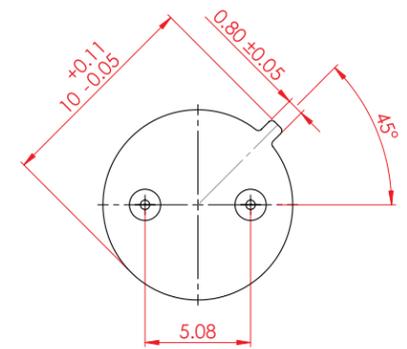
Modulation depth



Electrical specifications



EOC-IRE-550R-C



Angular radiation distribution (without window)

