Your Source For InfraRed
HAWKEYE TECHNOLOGIES

IR-Si217 EMITTER

DATASHEET



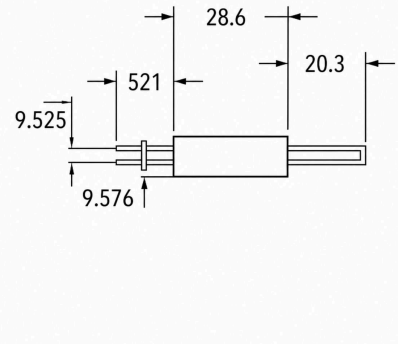
Infrared Emitter provides high temperature and high radiation output

General Information

Key Features: Stable characteristics (bare minimum resistance drift over life)

Emitter Type	Silicon Carbide-Based
Operation Mode	Steady State
ROHS	Conformed
Active Area	6 × 4.4 mm
Recommended Voltage	24V
Operation Life At 37 W Power*	≥ 5,000 H

*Max/Recommended. Higher input will impact emitter's life.



*All dimensions in mm

Application Notes

This emitter is designed to operate at elevated temperatures, with the radiating element reaching up to approximately 1385 °C. Such high operating temperatures must be carefully considered in system design and thermal management.

The heating element can operate in air. A neutral atmosphere (like nitrogen, argon, or vacuum) is also acceptable. During operation, the package temperature may rise to approximately 150 °C or higher, depending on operating conditions.

The emitter produces infrared radiation primarily within the wavelength range of 2 to 15 µm, with a peak emission around 3 µm.

This device is suitable for use in a wide range of infrared spectroscopic applications, including as a radiation source in IR spectrometers.

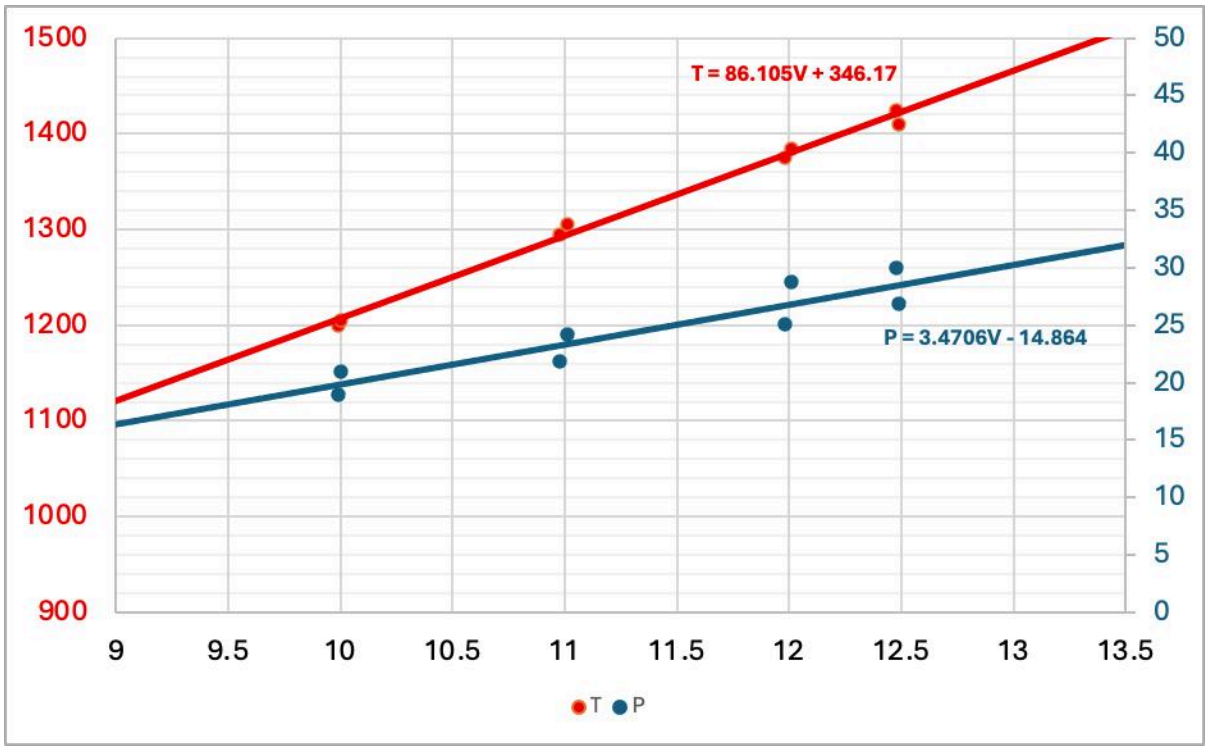
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Please visit our website for the most up to date information.

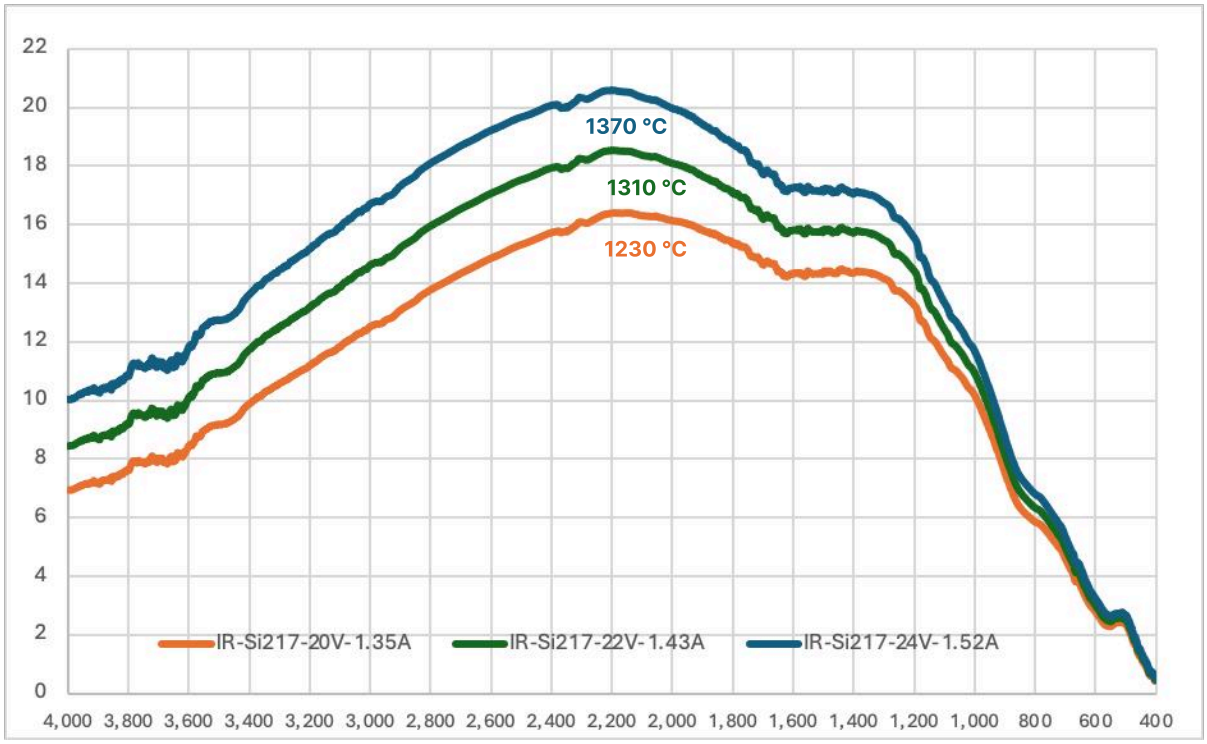
Emitter Ratings

Parameter	Symbol	Value, Typical	Unit	Notes
Cold Resistance	Rc	2.5	Ohm	At room temp
Input Power	P	37	W	-
Input Voltage	V	24	V	-
Input Current	I	1.5	A	-
Operating Resistance	Rop	16	Ohm	-
Active Area Temp	T	1385	°C	Environment at 25°C

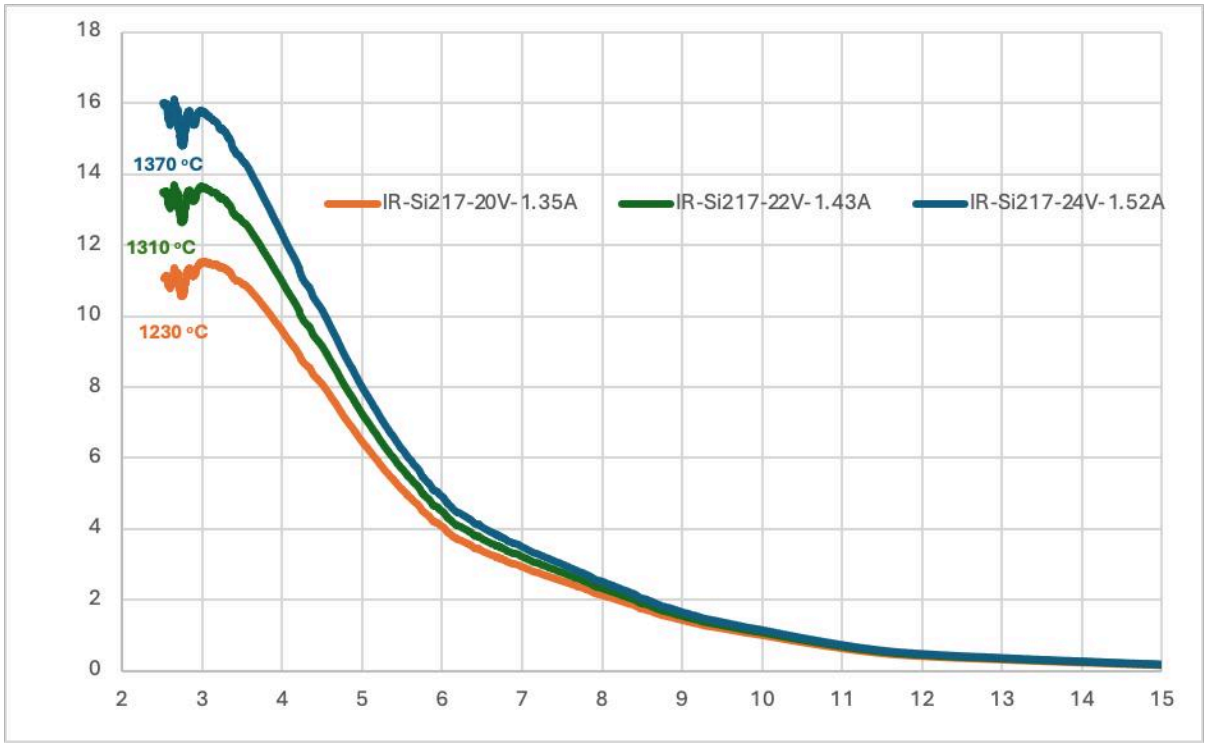
IR-Si217. Power (W) and Temperature (°C) vs Voltage (V)



IR-Si217. Emission (a.u.) vs Wavenumber (cm^-1)



IR-Si217. Emission (a.u.) vs Wavelength (um).



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IR-Si217. Radiance Distribution over Wavelengths.

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