

Preliminary data IR-Emitter JSIR-350-4-LW

Technical Data

Technical paramter	JSIR-350-4	JSIR-350-4-LW	Unit
Spectral output range	2 ... 15	2 ... 15	μm
Active area	2.2 x 2.2	2.2 x 2.2	mm ²
Hot resistant ¹	40 ± 20	35 ± 20	Ω
Temperature coefficient ²	typ. 500	typ. 480	ppm/K
Time constant _{0-63%}	typ. 12.5	typ. 30	ms
Nominal power consumption ³	650	650	mW
Operation voltage ⁴	typ. 4.9	typ 4.8	V
Operation current ⁴	typ. 132	typ. 136	mA
Recommended driving mode	Power mode	Power mode	
Active area temperature ^{1,5,6}	610 ± 30	580 ± 30	°C
Window	Available: Sapphire, BaF ₂ , CaF ₂ , Si ARC, other in request	Available: Sapphire, BaF ₂ , CaF ₂ , Si ARC, other in request	
Housing	TO39	TO39	
Estimated lifetime ^{7,8}	> 5 000 h at 950 mW > 100 000 h at 650 mW	> 5 000 h at 950 mW > 100 000 h at 650 mW	
Absolute max. ratings			
Input power ^{3,5}	1200	1200	mW
Housing temperature ⁸	185 without window, 85 with window	185 without window, 85 with window	°C
Active area temperature	850	850	°C

¹ At nominal power

² 25 °C – 800 °C

³ At power on-state

⁴ With 40 Ω hot resistant

⁵ At T_{amb} = 25 °C

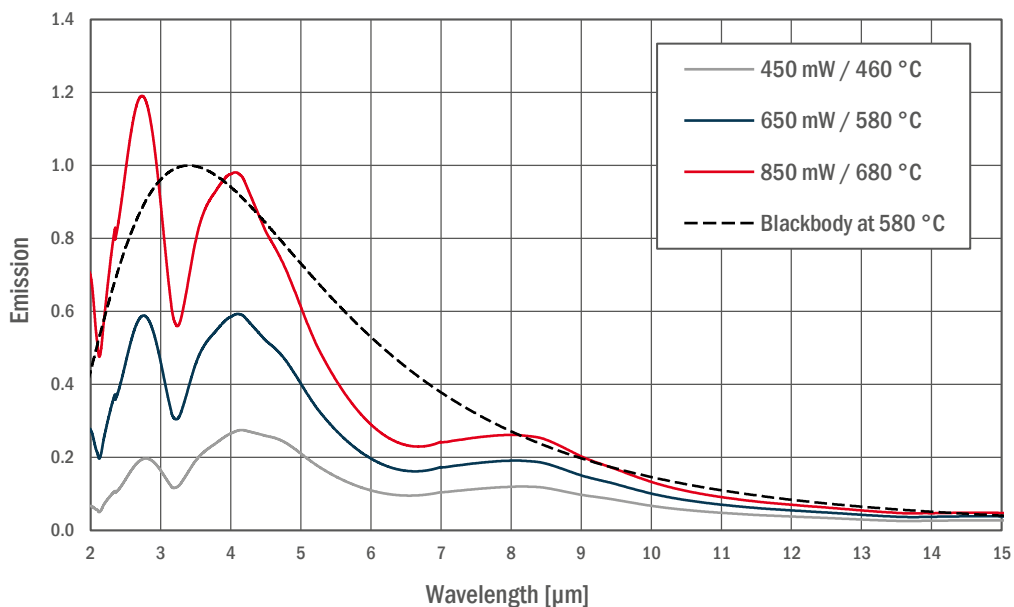
⁶ Mean of temperature distribution with 10 % decrease of hotspot temperature measured by IR camera 0.7-1.1 μm)

⁷ Continuous mode, MTF 63 % (membrane fracture, calculated values based on Arrhenius)

⁸ Including ambient temperature

Typical operating characteristics

Emission normalized to nominal power JSIR-350-4-LW and Planck's Law



Emission normalized to nominal power JSIR-350-4-LW and Planck's Law in comparison to JSIR-350-4

