

ROITHNER LASERTECHNIK GIRDH

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LED21-TEC-PR

TECHNICAL DATA



Mid-Infrared Light Emitting Diode

Light Emitting Diodes with central wavelength 2.15 μ m series are based on heterostructures grown on GaSb substrates. They are developed for using in optical gas sensors and medical diagnostics. LED21-TEC-PR has a stable outure power and a lifetime more then 80000 hours.

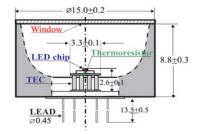
Features

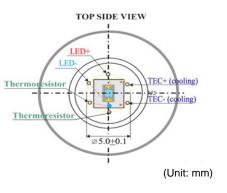
- Structure: GalnAsSb/AlGaAsSb
 Peak Wavelength: typ. 2.15 µm
- Optical Ouput Power: typ. 1.1 mW qCW
- Package: TO-5, with TEC, thermistor, PR and window



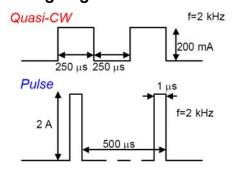
Specifications

Item	Condition	Rating			Unit
item	Condition	Min.	Тур.	Max.	Oill
Peak Wavelength	T=300 K	2.10	2.15	2.19	μm
FWHM	150 mA CW	150	200	250	nm
Quasi-CW Optical Power	200 mA qCW	0.9	1.1	1.3	mW
Pulsed Optical Power	1 A	25	28	30	mW
Switching Time	T=300 K	10	30	50	ns
Operation Voltage	200 mA qCW				V
Operating Temperature	-240 +50			ပ္	
Emitting Area	300x300 µ			μm	
Soldering Temperature	180			ပ္	
Package	TO-5, with built-in thermocooler, thermoresistor, parabolic reflector and quartz window				





Operating Regime



Quasi-CW

- Maximum current 220 mA
- Recommended current 150-200mA

Pulsed

 Maximum current 1 A (puls lenght 500 ns, repetition rate 2kHz)



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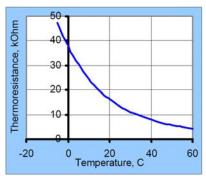
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Main Thermocooler Parameters (without load)

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I _{max}	0.7 A
Q _{max}	0.4 W
U _{max}	1.0 V
ΔT_{max}	67 °C



Typical Performance Curves

