



LIGHT EMITTING DIODES 1.6÷4.6 μm

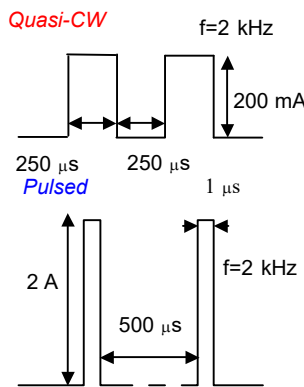
Model **LED31-TEC-PR** 3.1 μm 14 μW

- Light Emitting Diodes **LED31-TEC-PR** are designed for emitting at a spectral range around 3100 nm. Thermocooler and thermoresistor are mounted inside 9 mm package TO-5. Heterostructures (HS) are grown on InAs substrates
- Light Emitting Diodes **LED31-TEC-PR** are developed for using in optical gas sensors and medical diagnostics. Such construction gives possibility for temperature stabilization of LED parameters. Lifetime is more then 10000 hours.
- Related products: **LED31** can be used in optical pair with our photodiodes **PD36**. Our standard **LED Driver** provides power supply of **LED31-TEC-PR** in two recommended here regimes (Quasi-CW and Pulsed).



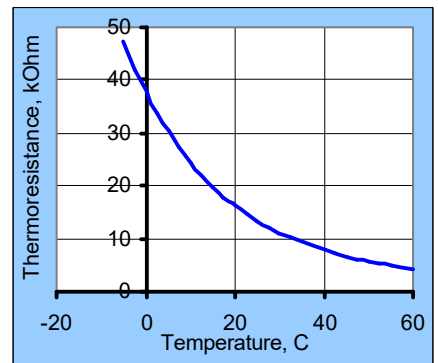
Parameters	Min	Typ	Max
Wavelength, μm	3.00	3.10	3.20
FWHM, μm	0.60	0.70	0.80
Optical Power, μW Quasi-CW @ 200 mA Pulsed@2A	12 180	14 200	16 220
Switching Time, ns	10	30	50
Range of temperature control $^{\circ}\text{C}$	-10÷+60		
Emitting Area, μm	300x300		
Soldering temperature	95 $^{\circ}\text{C}$		
Package	TO-5 with Thermocooler, Thermistor and Parabolic Reflector		

Recommended regimes of LED operation



Main thermocooler parameters (without load)

I_{max} (Amps)	Q_{max} (Watts)	U_{max} (Volts)	ΔT_{max} $^{\circ}\text{C}$
0.7	0.4	1.0	67



Package TO-5 with Parabolic Reflector

