## **LIGHT EMITTING DIODES** 1.6÷4.6 μm

## Model LED31-TEC-PR

## 3.1 mm 14 mW

•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

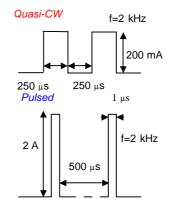
•Light Emitting Diodes *LED31-TEC-PR* are developed for using in optical gas sensors and medical diagnostics. Such construction gives possibility for temperature stabilization of LED parameters. Lifetime is more than 10000 hours.

•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).



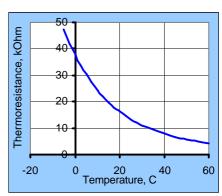
Recommended	regimes of	
	4.4	

LED operation



Main thermocooler parameters (without load)

I <sub>max</sub>	$Q_{max}$	$U_{max}$	$\Delta T_{\text{max}}$
(Amps)	(Watts)	(Volts)	°C
0.7	0.4	1.0	67



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

Package TO-5 with Parabolic Reflector

