

# LIGHT EMITTING DIODES 1.6÷4.6 μm

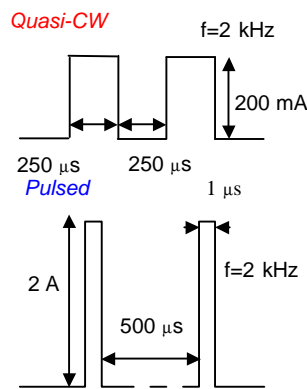
## Model LED31-TEC-PR 3.1 mm 14 mW

- 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 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).



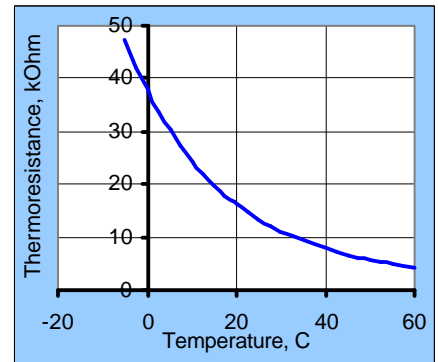
Parameters	Min	Typ	Max
Wavelength, μm	3.00	3.10	3.20
FWHM, μm	0.60	0.70	0.80
Optical Power, μW			
Quasi-CW @ 200 mA	12	14	16
Pulsed @ 2A	180	200	220
Switching Time, ns	10	30	50
Range of temperature control °C	-10÷+60		
Emitting Area, μm	300x300		
Soldering temperature	95 °C		
Package	TO-5 with Thermocooler,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

Recommended regimes of LED operation



Main thermocooler parameters (without load)

$I_{max}$ (Amps)	$Q_{max}$ (Watts)	$U_{max}$ (Volts)	$\Delta T_{max}$ °C
0.7	0.4	1.0	67



Package TO-5 with Parabolic Reflector

