

# LIGHT EMITTING DIODES 1.6÷4.6 μm

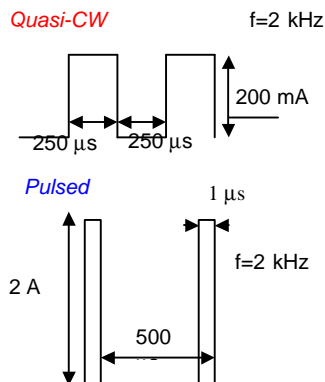
## Model LED19-TEC-PR 1.95 mm 1.0 mW

- Light Emitting Diodes **LED19-TEC-PR** are designed for emitting at a spectral range around 1950 nm. Thermocooler and thermoresistor are mounted inside 9 mm package TO-5. Heterostructures (HS) are grown on GaSb substrates
- Light Emitting Diodes **LED19-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: **LED19** can be used in optical pair with our photodiodes **PD24**. Our standard **LED Driver** provides power supply of **LED19-TEC-PR** in two recommended here regimes (Quasi-CW and Pulsed).



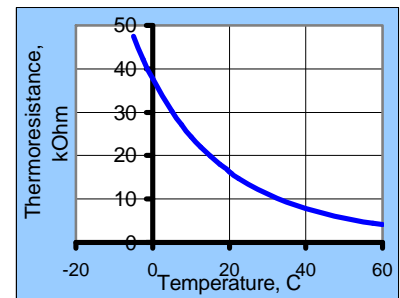
Parameters	Min	Typ	Max
Wavelength, μm	1.90	1.95	1.99
FWHM, μm	0.15	0.20	0.25
Optical Power, μW Quasi-CW @ 200 mA Pulsed@2A	0.8 20	1.0 25	1.2 30
Switching Time, ns	10	30	50
Range of temperature control °C	-10÷+60		
Emitting Area, μm	300x300		
Soldering temperature	95 °C		
Package	TO-5 with thermocooler, 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

