



LIGHT EMITTING DIODES 1.6÷4.6 μm

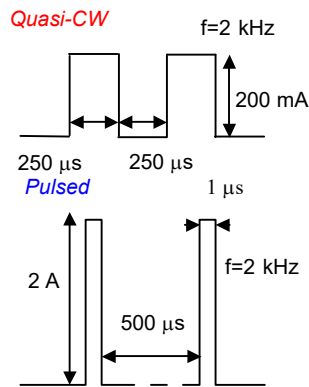
Model **LED18-TEC** 1.85 μm 0.9 mW

- Light Emitting Diodes **LED18-TEC** are designed for emitting at a spectral range around 1850 nm. Thermocooler and thermoresistor are mounted inside 9 mm package TO-5. Heterostructures (HS) are grown on GaSb substrates
- Light Emitting Diodes **LED18-TEC** 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: **LED18** can be used in optical pair with our photodiodes **PD24**. Our standard **LED Driver** provides power supply of **LED18-TEC** in two recommended here regimes (Quasi-CW and Pulsed).



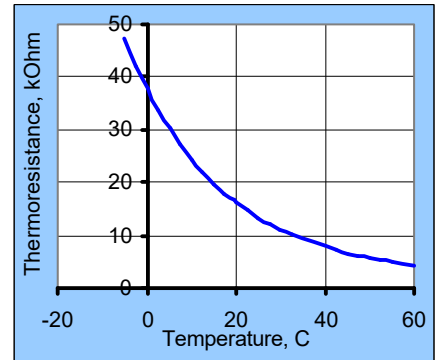
Parameters	Min	Typ	Max
Wavelength, μm	1.80	1.85	1.89
FWHM, μm	0.15	0.20	0.25
Optical Power, μW			
Quasi-CW @ 200 mA	0.7	0.9	1.1
Pulsed@2A	15	20	25
Switching Time, ns	10	30	50
Range of temperature control $^{\circ}\text{C}$	-10÷+60		
Emitting Area, μm	300x300		
Soldering temperature	95 $^{\circ}\text{C}$		
Package	TO-5 with thermocooler and thermistor		

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

