

# LIGHT EMITTING DIODES 1.6÷4.6 $\mu\text{m}$

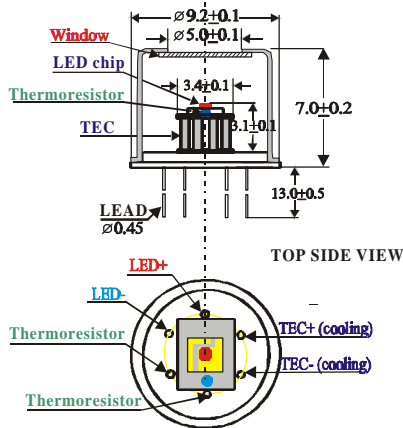
## Model **LED19-TEC** **1.95 mm 1.0 mW**

- Light Emitting Diodes **LED19-TEC** 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** 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** in two recommended here regimes (Quasi-CW and Pulsed).



Parameters	Min	Typ	Max
Wavelength, $\mu\text{m}$	1.90	1.95	1.99
FWHM, $\mu\text{m}$	0.15	0.20	0.25
Optical Power, $\mu\text{W}$ 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 $^{\circ}\text{C}$	-10 $\div$ +60		
Emitting Area, $\mu\text{m}$	300x300		
Soldering temperature	95 $^{\circ}\text{C}$		
Package	TO-5 with thermocooler and thermistor		

Package TO-5



Main thermocooler parameters (without load)

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

Recommended regimes of LED operation

