



LIGHT EMITTING DIODES 1.6÷4.6 μm

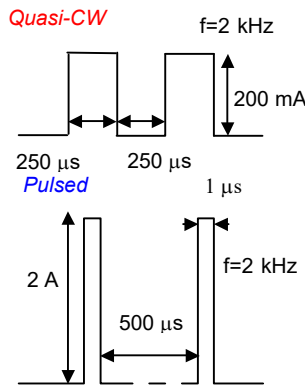
Model **LED23-TEC** 2.35 μm 0.8 mW

- Light Emitting Diodes **LED23-TEC** are designed for emitting at a spectral range around 2350 nm. Thermocooler and thermoresistor are mounted inside 9 mm package TO-5. Heterostructures (HS) are grown on GaSb substrates
- Light Emitting Diodes **LED23-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: **LED23** can be used in optical pair with our photodiodes **PD24**. Our standard **LED Driver** provides power supply of **LED23-TEC** in two recommended here regimes (Quasi-CW and Pulsed).



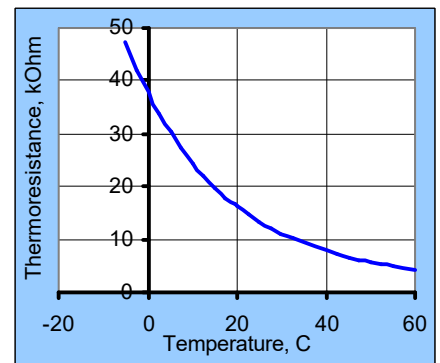
| Parameters | Min | Typ | Max |
|-------------------------------------------------|---------------------------------------|------|------|
| Wavelength, μm | 2.30 | 2.35 | 2.39 |
| FWHM, μm | 0.17 | 0.22 | 0.27 |
| Optical Power, μW | | | |
| Quasi-CW @ 200 mA | 0.6 | 0.8 | 1.0 |
| Pulsed@2A | 12 | 16 | 20 |
| 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

