

# LIGHT EMITTING DIODES 1.6÷4.6 μm

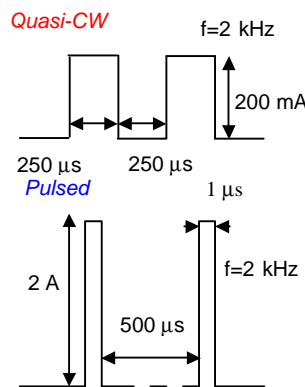
## Model LED34-TEC 3.4 mm 24 mW

- Light Emitting Diodes **LED34-TEC** are designed for emitting at a spectral range around 3400 nm. Thermocooler and thermoresistor are mounted inside 9 mm package TO-5. Heterostructures (HS) are grown on InAs substrates
- Light Emitting Diodes **LED34-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: **LED34** can be used in optical pair with our photodiodes **PD36**. Our standard **LED Driver** provides power supply of **LED34-TEC** in two recommended here regimes (Quasi-CW and Pulsed).



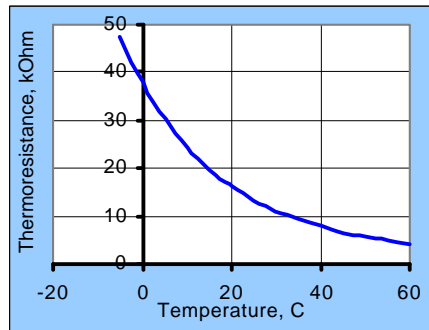
| Parameters  | Min                                   | Typ       | Max       |
|---|---------------------------------------|-----------|-----------|
| Wavelength, μm                                      | 3.30                                  | 3.40      | 3.50      |
| FWHM, μm  | 0.60                                  | 0.70      | 0.80      |
| Optical Power, μW<br>Quasi-CW @ 200 mA<br>Pulsed@2A | 20<br>320                             | 24<br>400 | 28<br>480 |
| 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 and thermistor |           |           |

Recommended regimes of LED operation



Main thermocooler parameters (without load)

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



Package TO-5

