Ioffe Light Emitting Diodes

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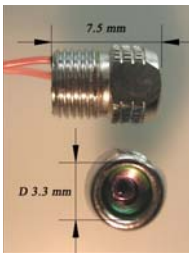
Optically pumped immersion 3.1 μm LED			**OPLED31Sc**
Peak wavelength	λ_{max}	μm	3.1
Pulsed power at I=1 A	P_{pulsed}	μW	300±70
CW power at I=100 mA	P_{CW}	μW	50±15
Switching time	τ	ns	≤50

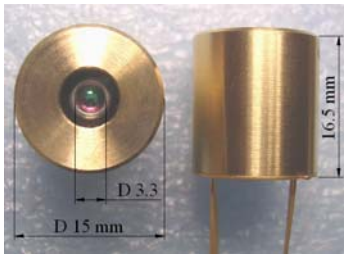
Code	Thread	Sensitive area, mm	Lens material	Angle of view FWHM, deg.	Operation (storage) conditions, °C	Polarity
OPLED31Sc	M5×0.5	∅ 3.3	Si	≤20	-25÷+60	short wire or black point is negative
OPLED31TO8TEC			Si lens and quartz window			See fig. below

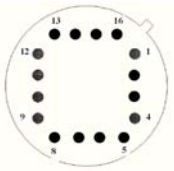
Product view

OPLED31Sc

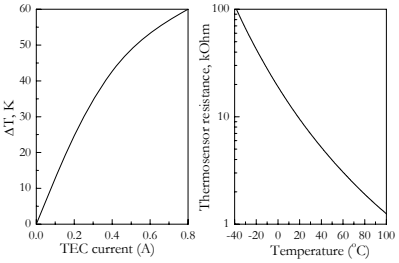


OPLED31TO8TEC



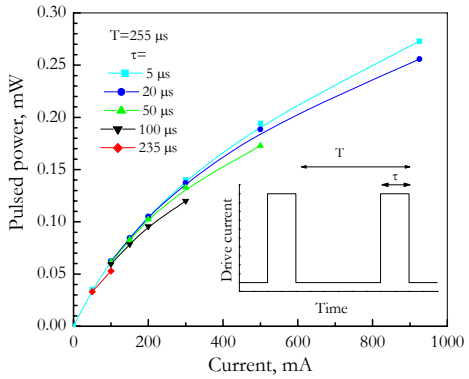


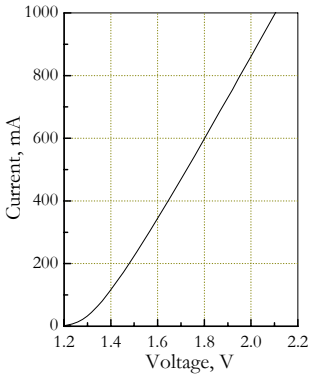
1 TEC −; 4 TEC +
8 LED +; 13 LED −
10, 11 thermosensor,

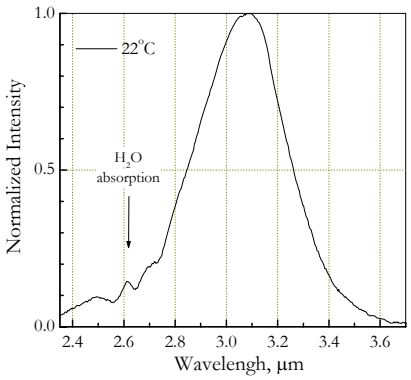


- ✓ Beam divergence of the LEDs is small and thus we recommend adjusting LED position regarding to the detector system before final evaluation/use of the devices.
- ✓ All data are valid for room temperature (22°C) and LED attached to a heatsink. Heatsink is important for normal LED operation especially in the CW mode.
- ✓ The maximal cooling in OPLED31TO8TEC mounted onto a heatsink is around ΔT =-50 K (at current through TEC of 0.8 A)

Output power vs. current, current-voltage curve and emission spectra







Output power and peak wavelength vs. temperature, far-field pattern and maximal current vs. operation conditions