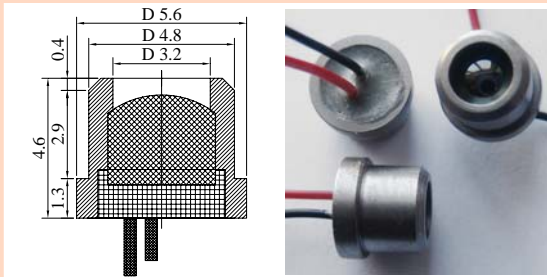


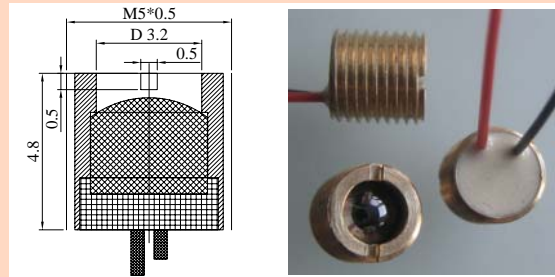
|                                 |    |                                     |      |
|---------------------------------|----|-------------------------------------|------|
| Peak wavelength $\lambda_{max}$ | μm | 3.35±3.45                           |      |
| Pulse power $P_{pulsed}$        | mW | Drive current 1 A, 2 % duty cycle   | 0.42 |
| Quasi-CW power $P_{QCW}$        | mW | Drive current 0.4 A, 50% duty cycle | 0.23 |
| CW power $P_{CW}$               | mW | Drive current 0.2 A                 | 0.15 |

| Code       | Emission size, mm | Lens material | Far-field pattern FWHM, deg. | Optical axis deviation, deg. | Optical power deviation, % | Operation conditions, °C | Lifetime, hrs | Polarity                                   |
|------------|-------------------|---------------|------------------------------|------------------------------|----------------------------|--------------------------|---------------|--|
| LED34Su/Sr | ∅ 3.2             | Si            | ~15                          | ≤5                           | ±25                        | -25÷+60                  | >80 000       | Red wire – positive, Black wire – negative |

Product view



LED34Su



LED34Sr

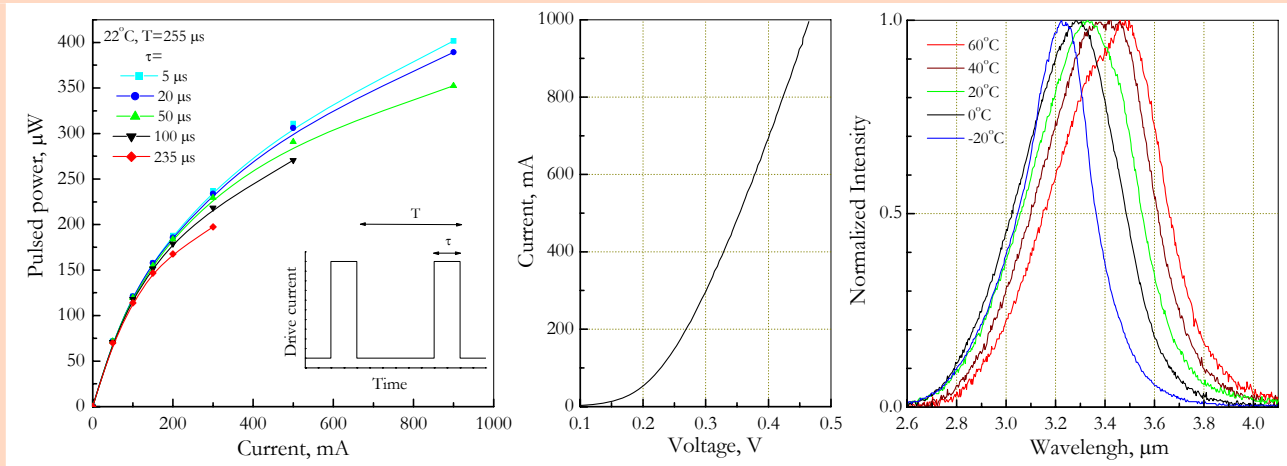
Features

Growth of narrow gap semiconductor alloys onto n<sup>+</sup>-InAs substrate; Flip-chip design of LEDs; Optical coupling through the use of chalcogenide glasses and Si lenses with antireflection coating

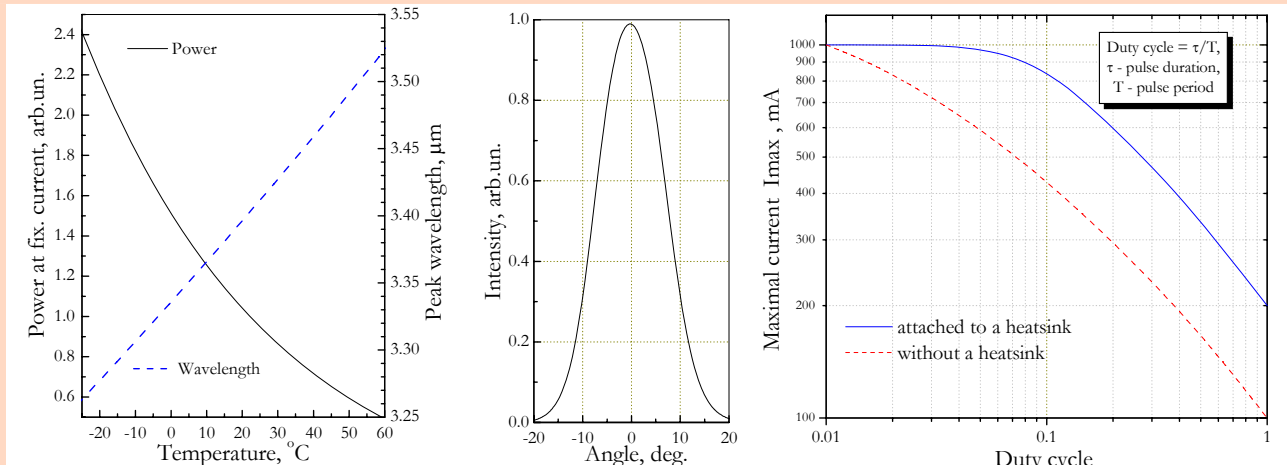
3-fold increased LED output power; Beam collimation within ~15 deg; Low serial resistance; Small on-off time (tenths of ns); Low power consumption (≤0.1 W)

Emission beam divergence is small and thus we recommend adjusting LED position regarding to the detector system before final evaluation/use of the devices. We recommend if possible using low duty cycle mode of operation with  $I < 0.5 \times I_{max}$  so that higher efficiency and long term stability of a LED are achieved. **Data are valid for 22°C and LED attached to a heatsink.** Heatsink is important for LED operation especially in the CW mode.

I-V and I-V characteristics and emission spectra



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



Product specifications are subject to change without prior notice due to improvements or other reasons. Updated 14.10.11

