

## Monolithic Display Chips and Point Sources



### Monolithic Display Chips for small optical systems

LED display chips enable to present numbers, letters and symbols for reticle in optical instruments. In a very small area various information can be displayed. Each segment is separately addressable. The red color (660 nm) of the GaAsP based chips are visible at low currents with low power consumption, resulting in extended battery life in portable optical instruments.

#### Advantages

- :: Emission color red (660 nm) with high brilliance and contour sharpness
- :: Small character size (lines of 25 $\mu$ m) (7-segment chip with height of 0.5 – 1.5 mm)
- :: Extremely long battery life time for portable devices
- :: Customized layouts available from development to serial product

### Point Source LED Chip

Point Source LED Chips are designed for illuminations with a parallel light beam, eliminating any obstruction and dark spots. Available wavelengths are red (625nm) and infrared (850nm) with apertures of emitting areas of  $\varnothing$  10 $\mu$ m,  $\varnothing$  25 $\mu$ m,  $\varnothing$  50 $\mu$ m,  $\varnothing$  100 $\mu$ m or  $\varnothing$  200 $\mu$ m.

#### Advantages

- :: Well defined beam for high accuracy applications
- :: High reliability, long lifetime and high efficiency
- :: Improved pulsing / flashing speeds

#### Applications

- Encoders
- Fiber Communication
- Fluorescence Analysis
- Linear Positioning
- Distance and Range Finding Indication
- Medical Instruments such as Endoscopes

