

Selective Photodiode

EPD-470-5/05-1

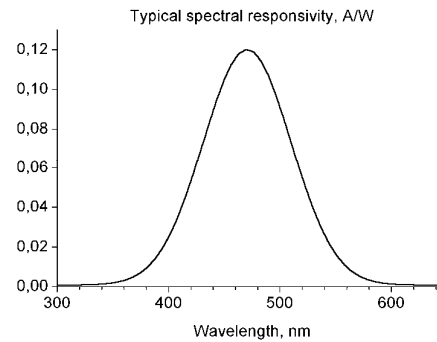
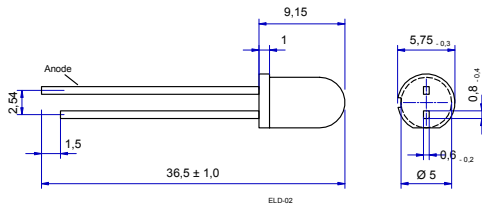
| Spectral range | Type | Technology | Case |
|----------------|-------------|------------|-------------------|
| Blue-green | Water-clear | GaP | 5 mm plastic lens |

Description

Narrow response range (470 nm peak),

Applications

Optical communications, safety equipment, automation, analytics



Maximum Ratings

| Parameter | Value | Unit |
|-----------------------|------------|------|
| Storage Temperature | - 40...+85 | °C |
| Operating Temperature | - 40...+85 | °C |
| Soldering Temperature | 260 | °C |

Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

| Parameter | Test conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------------------|--------------------------------------|-----------------------|-----|-----|-----|-----------------|
| Active area | | A | | 0.2 | | mm ² |
| Peak sensitivity, typ. | | λ_{Smax} | | 470 | | nm |
| Spectral bandwidth at 50% | | $\Delta\lambda_{0,5}$ | | 100 | | nm |
| Acceptance angle at 50% S_{λ} | | | | 20 | | deg. |
| Responsivity at 470 nm | $V_R = 0\text{ V}$ | S_{λ} | | 0.2 | | A/W |
| Dark current | $V_R = 5\text{ V}, E_e=0$ | I_D | | 20 | 50 | pA |
| Reverse voltage | $I_R = 10\ \mu\text{A}$ | V_R | | 10 | | V |
| Switching time | $R_L = 50\ \Omega, V_R = 5\text{ V}$ | t_r, t_f | | 200 | | ns |

*Light source is an InGaN LED with a peak emission wavelength of 470 nm