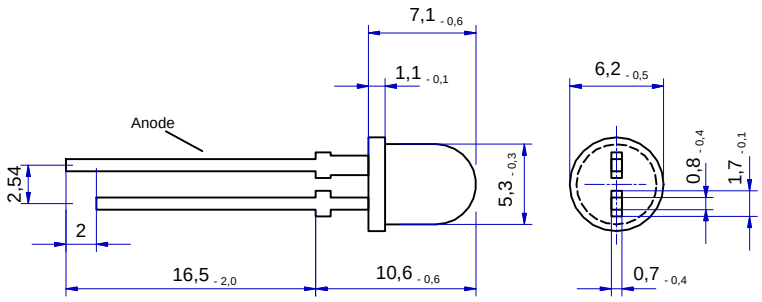
# Selective Photodiode EPD-740-5

| Spectral range | Type | Technology | Case |
|---|---|---|---|
| Infrared | EPD-740-5 | AlGaAs/AlGaAs/GaAs | 5 mm plastic lens |

**Description**
Narrow response range (740 nm peak), single heterostructure on the substrate

**Applications**
Optical communications, safety equipment




## Maximum Ratings

| Parameter | Value | Unit |
|---|---|---|
| Storage Temperature | - 40...+90 | °C |
| Operating Temperature | -40...+85 | °C |
| Soldering Temperature | 240 | °C |

## Optical and Electrical Characteristics

$T_{amb}$ = 25°C, unless otherwise specified

| Parameter | Test conditions | Symbol | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Active area | | A | | 0.13 | | $mm^2$ |
| Peak sensitivity | | $\lambda_{Smax}$ | 700 | 740 | 780 | nm |
| Spectral bandwidth at 50% | | Ä$\lambda_{0,5}$ | | 60 | | nm |
| Acceptance angle at 50% $S_ë$ | | | | 40 | | deg. |
| Responsivity at 740 nm | $V_R$ = 0 V | $S_ë$ | | 0.5 | | A/W |
| Short-circuit current* | $V_R$ = 0, $E_e$=1 mW/cm² | $I_{SC}$ | | 1 | | µA |
| Dark current | $V_R$ = 5 V, $E_e$=0 | $I_D$ | | 40 | 200 | pA |
| Reverse voltage | $I_R$ = 10 µA | $V_R$ | | 10 | | V |
| Junction capacitance | $V_R$ = 0, $E_e$=0 | Ñ | | 40 | | pF |
| Rise time<br>Fall time | $R_L$ = 50 ,<br>$V_R$ = 5 V | $t_r$<br>$t_f$ | | 15<br>30 | | ns |
| Parameter | Test conditions | Symbol | Min | Typ | Max | Unit |

*Light source is an AlGaAs LED with a peak emission wavelength of 740 nm