# SLD-70C2

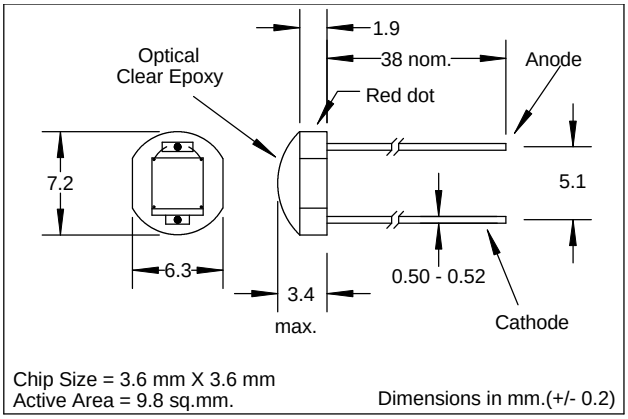
## Planar Photodiode

### Features

- Planar photodiode
- Low capacitance
- Fast switching time
- Low leakage current
- Linear response vs irradiance
- Multiple dark current ranges available

### Description

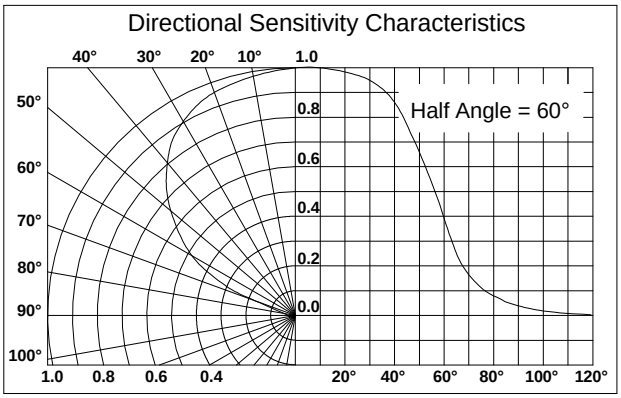
The planar photodiode is designed to operate in either photoconductive or photovoltaic modes. High sensitivity and low dark current allow use in even low irradiance applications. The photodiode is supplied on a ceramic base with a clear epoxy dome package.




### Absolute Maximum Ratings

| | |
|---|---|
| Storage Temperature | -20°C to +75°C |
| Operating Temperature | -20°C to +75°C |
| Soldering Temperature (3) | 260°C |

Notes: (1) Ee = source @ 2854°K.
(2) Ee = source @ λ = 880 nm
(3) >2 mm from case for < 5 sec.




### Electrical Characteristics ($T_A$=25°C unless otherwise noted)

| Symbol | Parameter | MIN | TYP | MAX | UNITS | TEST CONDITIONS |
|---|---|---|---|---|---|---|
| $I_{SC}$ | Short Circuit Current | 450 | 700 | | µA | $V_R$=0V, Ee=25mW/cm$^2$ (1) |
| $V_{OC}$ | Open Circuit Voltage | | 0.40 | | V | Ee=25mw/cm$^2$ (1) |
| $I_D$ | Reverse Dark Current: | | | | | |
| | SLD-70C2A | | | 100 | nA | $V_R$=100mV, Ee=0 |
| | SLD-70C2B | | | 100 | nA | $V_R$=5V, Ee=0 |
| | SLD-70C2C | | | 20 | nA | $V_R$=5V, Ee=0 |
| | SLD-70C2D | | | 5 | nA | $V_R$=5V, Ee=0 |
| | SLD-70C2E | | | 1 | nA | $V_R$=5V, Ee=0 |
| $C_J$ | Junction Capacitance | | 180 | | pF | $V_R$=0, Ee=0, f=1MHz |
| $t_R$ | Rise Time | | 4 | | µs | $V_R$=5V, $R_L$=1kΩ (2) |
| $t_F$ | Fall Time | | 6 | | µs | $V_R$=5V, $R_L$=1kΩ (2) |
| $TC_I$ | Temp. Coef., $I_{SC}$ | | +0.2 | | %/°C | (1) |
| $V_{BR}$ | Reverse Breakdown Voltage | 50 | | | V | $I_R$=100µA |
| $\lambda_P$ | Maximum Sensitivity Wavelength | | 930 | | nm | |
| $\lambda_R$ | Sensitivity Spectral Range | 400 | | 1100 | nm | |
| $\theta_{1/2}$ | Acceptance Half Angle | | 60 | | deg | (off center-line) |

Specifications subject to change without notice.