

Features

- Planar Photodiode
- Wide receiving angle
- Large active area chip
- Fast switching time
- Low leakage current
- Linear response vs irradiance
- Multiple dark current ranges available

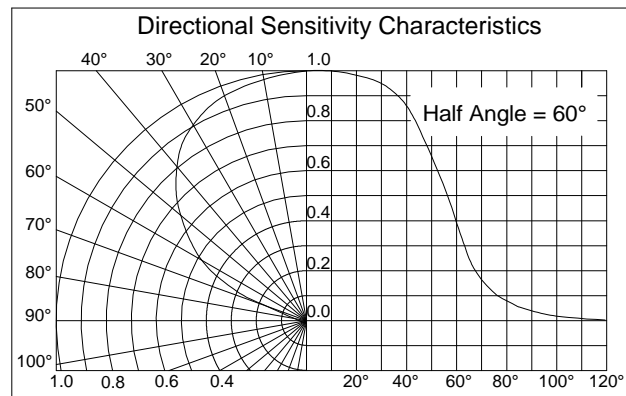
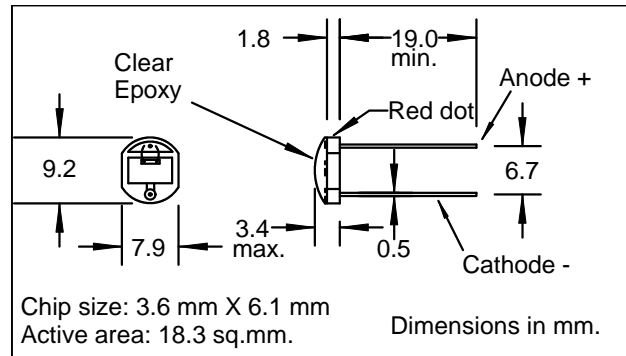
Description

The planar photodiode is designed to operate in either photovoltaic or photoconductive modes. High sensitivity and low dark current allow use in even low light applications. The large area silicon photodiode measures 3.6 mm X 6.1 mm (0.140" x 0.240"). The photodiode is supplied on a ceramic base with a clear epoxy dome window.

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 = light source @ 2854 °K
 (2) Ee = light source @ $\lambda = 880 \text{ nm}$
 (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 | 600 | 900 | | 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-69C1A | | | 100 | nA | V _R = 0.1V, Ee = 0 |
| | SLD-69C1B | | | 100 | nA | V _R = 5V, Ee = 0 |
| | SLD-69C1C | | | 20 | nA | V _R = 5V, Ee = 0 |
| | SLD-69C1D | | | 5 | nA | V _R = 5V, Ee = 0 |
| | SLD-69C1E | | | 1 | nA | V _R = 5V, Ee = 0 |
| C _J | Junction Capacitance | | 350 | | pF | V _R =0, Ee=0, f=1MHz |
| t _R | Rise Time | | 8 | | μs | V _R =10V, R _L =1kΩ (2) |
| t _F | Fall Time | | 10 | | μs | V _R =10V, R _L =1kΩ (2) |
| TC _I | I _{SC} Temp. Coef. | | +0.2 | | %/°C | (1) |
| V _{BR} | Reverse Breakdown Voltage | | 50 | | V | I _R = 100 μA |
| λ _P | Maximum Sensitivity Wavelength | | 930 | | nm | |
| λ _R | Sensitivity Spectral Range | 400 | | 1100 | nm | |
| θ _{1/2} | Acceptance Half Angle | | 60 | | deg | (off center-line) |

Specifications are subject to change without notice.

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