

61099

PHOTODIODE-AMPLIFIER HYBRID

Mii

**OPTOELECTRONIC PRODUCTS
DIVISION**

Features:

- Hermetically sealed
- 4 Pin TO-5 Package
- High sensitivity
- Low noise/Grounded Case
- Feedback Circuit Built In

Applications:

- Light Detection/Light Measurement
- Guidance Systems
- Industrial Control
- Pollution Monitoring
- Bar Code Readers
- Medical

DESCRIPTION

The **61099** combines a large-area photodiode with a low-noise operational amplifier in a transimpedance connection. The feed back resistor and a shunt capacitor are included within the case, which is grounded for shielding. The sensing area is one square centimeter.

ABSOLUTE MAXIMUM RATINGS

| | |
|---|------------------|
| Storage Temperature..... | -30°C to + 100°C |
| Operating Temperature | 0°C to + 70°C |
| Supply Voltage..... | ±18V |
| Lead Soldering Temperature (1/16 inch from case – 5 seconds)..... | 240°C |

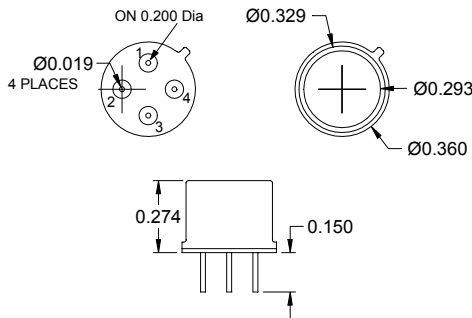
Notes:

(1) Derate linearly @ 1.33 mW/°C for T_A > 25°C.

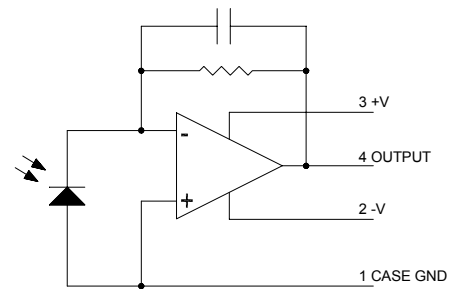
Package Dimensions

Schematic Diagram

TOP VIEW



DIMINIONS ARE IN INCHES
DIMINIONS ARE NOMINAL



ELECTRICAL CHARACTERISTICS

At 25°C unless otherwise specified.

| PARAMETER | MIN | TYP | MAX | UNITS |
|--|-----|-----------------|-----------|--|
| Responsivity $\lambda = 254\text{nm}$ $\lambda = 340\text{nm}$ $\lambda = 900\text{nm}$ | | 50 60 225 | | V/ μ W V/ μ W V/ μ W |
| Dark Offset Voltage | | | ± 1.0 | MV |
| Rise Time | | | 5.0 | Msec |
| High Frequency Noise (0.1 to 10 kHz) | | | 0.75 | MVrms |
| Ambient Light Offset Voltage | +12 | | | Volts |