



**DESCRIPTION**

The **PDV-P8102** are (CdS), Photoconductive photocells designed to sense light from 400 to 700 nm. These light dependent resistors are available in a wide range of resistance values. They're packaged in a two leaded plastic-coated ceramic header

**FEATURES**

- Visible light response
- Sintered construction
- Low cost

**RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

**APPLICATIONS**

- Camera exposure
- Shutter controls
- Night light controls

**ABSOLUTE MAXIMUM RATINGS**

| SYMBOL                            | MIN |    | MAX  | UNITS | (TA)= 23°C UNLESS OTHERWISE NOTED |
|-----------------------------------|-----|----|------|-------|-----------------------------------|
| Applied Voltage                   | -   | -  | 150  | V     | -                                 |
| Continuous Power Dissipation      | -   | -  | 100  | mW/°C | -                                 |
| Operation and Storage Temperature | -30 | to | +75  | V     | -                                 |
| Soldering Temperature*            | -   | -  | +260 | °C    | -                                 |

\* 0.200 inch from base for 3 seconds with heat sink.

**OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

| PARAMETER                  | TEST CONDITIONS  | MIN | TYP | MAX | UNITS |
|----------------------------|--|-----|-----|-----|-------|
| Dark Resistance            | After 10 sec. @10 Lux @ 2856°K   | 0.3 | -   | -   | MΩ    |
| Illuminated Resistance     | 10 Lux @ 2856°K  | 9   | -   | 20  | KΩ    |
| Sensitivity                | $\frac{\text{Log}(R100) - \text{Log}(R10) **}{\text{Log}(E100) - \text{Log}(E10) ***}$ | -   | 0.7 | -   | Ω/Lux |
| Spectral Application Range | Flooded  | 400 | -   | 700 | nm    |
| Spectral Application Range | Flooded  | -   | 520 | -   | nm    |
| Rise Time                  | 10 Lux @ 2856 °K   | -   | 60  | -   | ms    |
| Fall Time                  | After 10 Lux @ 2856 °K   | -   | 25  | -   | ms    |

\*\*R100, R10: cell resistances at 100 Lux and 10 Lux at 2856 °K respectively .

\*\*\*E100, E10: luminances at 100 Lux and 10 Lux 2856 °K respectively.

**TYPICAL PERFORMANCE**

**CELL RESISTANCE vs. ILLUMINANCE**

