



PDV-P9002-1

Light Dependent Resistor (LDR) CdS Photocell

The PDV-P9002-1 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.

Advanced Photonix's CdS Photocells are photoresistor cells for visible light measurement designed to sense light from 400 to 700 nm. Their resistance decreases as the light level increases with efficiency characteristics similar to the human eye. These Light Dependent Resistors (LDR) are available in a wide range of resistance values. They are available in a two-leaded plastic-coated ceramic header or hermetically sealed TO metal cans.

Applications

Camera Exposure

Shutter Controls

Night Light Controls

Features

Visible Light Response

Sintered Construction

Low Cost

Absolute Maximum Ratings at $T_A=23\text{ }^\circ\text{C}$

Parameter	Symbol	Min	Max	Unit
Voltage (peak AC or DC)	V_P	-	150	V
Power Dissipation at 25°C ¹	-	-	90	mW
Operating Temperature	T_{OP}	-30	+75	°C
Storage Temperature	T_{STG}	-30	+75	°C
Package	2-pin Ceramic			

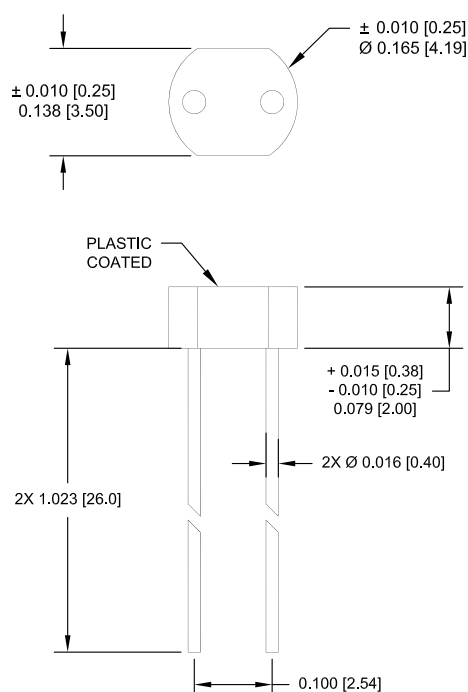
¹Derate linearly to 0 at 75°C.

Typical Electro-Optical Specifications at $T_A=23\text{ }^\circ\text{C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Dark Resistance	After 10sec. @10Lux @2856°K	R_D	0.5	-	-	MΩ
Spectral Application Range	Flooded	λ	400	570	700	nm
Illuminated Resistance	10Lux@2856°K	R_{IL}	11	-	27	KΩ
Sensitivity	$\frac{\text{Log}(R_{100}) - \text{Log}(R_{10})^{**}}{\text{Log}(E_{100}) - \text{Log}(E_{10})^{***}}$	S	400	0.7	-	Ω/Lux
Rise Time	10Lux @2856°K	T_R	-	60	-	ms
Fall Time	After 10Lux @2856°K	T_F	-	25	-	ms

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

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



Mechanical Specifications

Units are in inches [mm]