



NSL-06S53

Light Dependent Resistor (LDR) CdS Photocell

The NSL-06S53 is a light dependent resistor with sensitivity in the visible light region. It is a type 5 CdS photoresistor cell in a flat lens TO-18 package.

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

- Industrial
- Audio Compressors
- Night Lights
- Photography Light Meters
- Solar Street Lights
- Flame Detection

Features

- Passive Resistance output
- Hermetically Sealed TO-18
- Available in a two-leaded ceramic package
- Available in a wide range of resistance values

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Voltage (peak AC or DC)	V_R	-	2000	V
Power Dissipation at 25°C	-	-	50	mW
Operating Temperature	T_{OP}	-40	+75	°C
Storage Temperature	T_{STG}	-40	+75	°C
Package		TO-18		

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Light Resistance	10lux, 2854K ¹	R_{on}	5.4	-	100	K Ω
	100lux, 2854K ¹	R_{on}	-	5	-	K Ω
Dark Resistance	5 Sec. after light removal	R_{off}	20	-	-	M Ω
Spectral Peak	-	λ_p	-	550	-	nm
Gamma	1-10lux	Γ	-	0.7	-	-
	10-100lux	Γ	-	0.7	-	-

¹ Cells light adapted at 30 to 50 ftc for 16 hours prior to electrical tests.

Mechanical Specifications

Units are in inches [mm]

