PHOTORESISTORS

5mm, 12mm, & 20mm LDR Radial Lead Types

Description

Photoconductive cells are sensors that allow you to detect light. They are small, inexpensive, low-power, easy to use, and don't wear out. NTEs light-dependent resistors (LDR) are photoresistors whose resistance decreases with increasing incident light intensity. In other words, when it is dark, they have a high electrical resistance and when it is light, their electrical resistance is low.

Features

- Epoxy Encapsulated
- Small Size
- **Reliable Performance**
- Quick Response
- High Sensitivity
- Good Characteristic of Spectrum

Typical Applications

- **Digital Applications**
- Automatic Headlight Dimmer •
- Night/Streetlight Control
- Photoelectric Control
- Industrial Control
- Security System

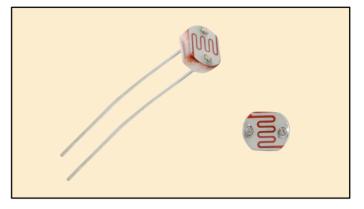
Analog Applications

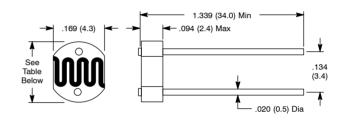
- Camera Exposure Control
- Automatic Gain Control

Specifications

Spectral Response Peak:

5mm Types: 540nm 12mm & 20mm Types: 560nm Ambient Temperature Range: -30° to +70°C





			Max. DC	Power Dissipation	Light Resistance	Dark Resistance	100	Response Times (ms)	
	NTE Type	Diameter	Voltage	(mW)	(10Lux)(KΩ)	(MΩ)	γ <u>100</u> 10	Increase	Decrease
	02-LDR1	.201 (5.0)	150	100	50 – 100	5.0	0.8	20	30
	02-LDR2	.201 (5.0)	150	90	5 – 10	0.2	0.5	30	30
	02-LDR3	.201 (5.0)	150	100	100 – 200	10.0	0.9	20	30
NEW	02-LDR4	.201 (5.0)	150	100	30 – 50	3.0	0.7	20	30
NEW	02-LDR12	.472 (12.0)	250	200	5 – 10	1.0	0.6	30	30
NEW	02-LDR13	.472 (12.0)	250	200	10 – 20	2.0	0.6	30	30
NEW	02-LDR14	.472 (12.0)	250	200	30 – 50	5.0	0.7	30	30
NEW	02-LDR15	.472 (12.0)	250	200	50 – 100	8.0	0.8	30	30
NEW	02-LDR20	.787 (20.0)	500	500	5 – 10	1.0	0.6	30	30
NEW	02-LDR21	.787 (20.0)	500	500	10 – 20	2.0	0.6	30	30
NEW	02-LDR22	.787 (20.0)	500	500	30 – 50	5.0	0.7	30	30
NEW	02-LDR23	.787 (20.0)	500	500	50 – 100	8.0	0.8	30	30

Soldering Notes: 1. Soldering times should be kept as short as possible.

2. The soldering iron should be positioned at least 4mm from the ceramic base.

Terms

- Light Resistance:
- Measured at 10Lux with standard light A (2854K color temperature) and 2H pre-illumination at 400-600Lux prior to testing.
- . Dark Resistance: Measured 10 seconds after pulsed 10Lux.
- Gamma Characteristic: log (R10 / R100) $= \log(R10 / R100)$ Between 10Lux and 100Lux and given by: T = log(100 / 10)

R10, R100 cell resistance at 10Lux and 100Lux. The error of T is +0.1.