

Product Data

CLD41
CLD42
CLD41BB
CLD42BB

Silicon Planar
Photovoltaic Diodes

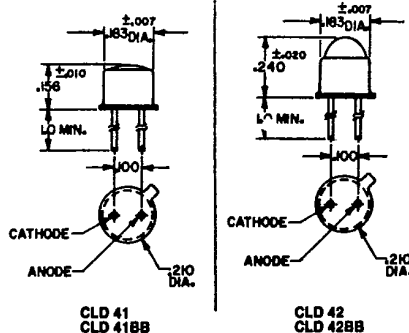
GENERAL DESCRIPTION — The CLD Series of Photodiodes is specifically designed to optimize Photovoltaic characteristics. They are all Silicon PN Planar diodes in hermetic cases for stringent environmental applications. All four diodes offer high linearity, low dark current, and fast response for use in critical measurement applications.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature — 35°C to + 150°C

Operating Junction Temperature + 150°C



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All dimensions $\pm .005$ except as noted.**ELECTRICAL CHARACTERISTICS (25°C Free Air unless otherwise designated.)**

Symbol	Characteristics	CLD41 Min. Max.	CLD41BB Min. Max.	CLD42 Min. Max.	CLD42BB Min. Max.	Unit
LXW	Active Area	.051 x .051	.051 x .051	.051 x .051	.051 x .051	inches
I_{sc}	Short Circuit Current (1) H = 5mw/cm ²	6	6	35	35	μA
V_{oc}	Open Circuit Voltage (1) H = 5mw/cm ²	.35 Typ.	.35 Typ.	.35 Typ.	.35 Typ.	Volts
I_D	Dark Current V = -100 mv H = 0 V = -15 v	50	50	50	50	nA
C_j	Junction Capacitance (2)	40	40	40	40	pf
t_r, t_f	Rise or Fall time (3)	3	3	3	3	μsec
ΔT_{sc}	Temperature Coefficient I_{sc} (1) (4)	+.2% Typical				%/C°
	Peak Spectral Response	8600 Typ.	8600 Typ.	8600 Typ.	8600 Typ.	°A

(1) Light source is a frosted tungsten incandescent lamp at 2854°K.

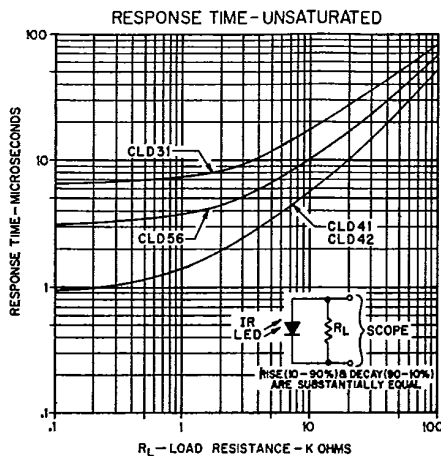
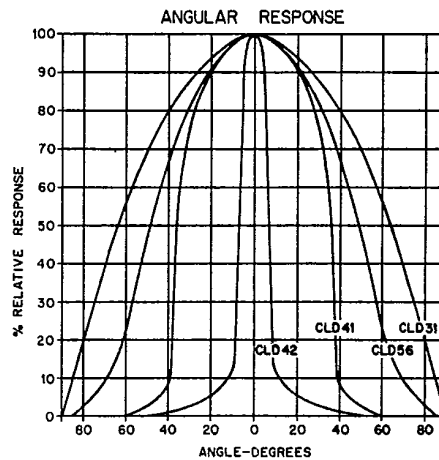
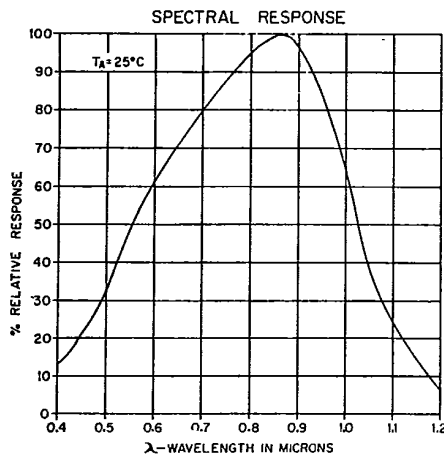
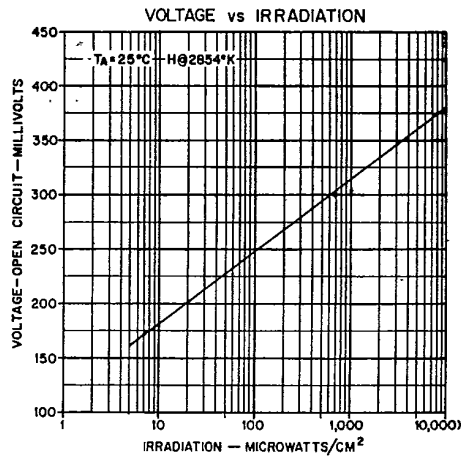
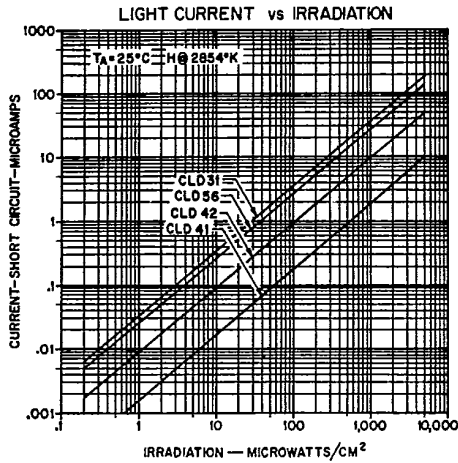
(2) Measured at 0 bias with f = 1MHZ.

(3) Measured in an unsaturated condition with an IR source and a load resistor of 1Kohms.

(4) Typical open circuit voltage temperature coefficient is -2mV/°C.

Consult factory for special I_D selections

T-41-51



PHOTOVOLTAIC DIODE EQUIVALENT CIRCUIT

