

T-41-51

Product Data

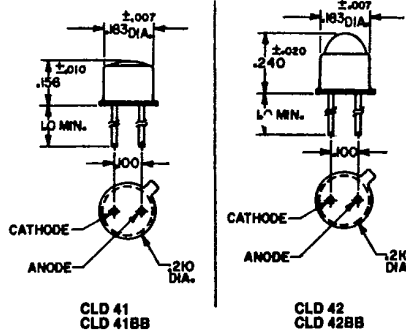
CLD41
CLD42
CLD41BB
CLD42BB

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



4

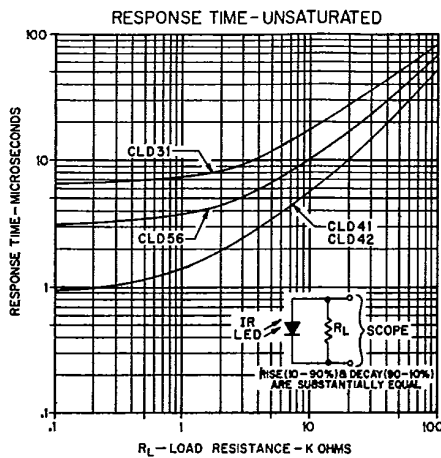
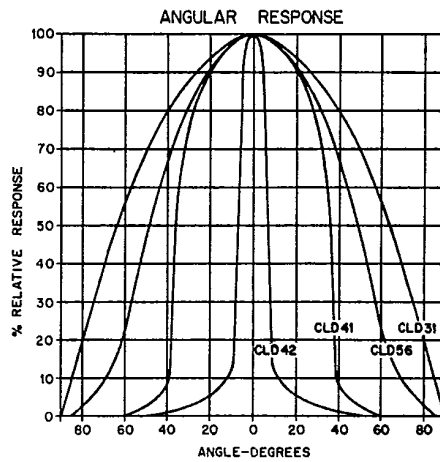
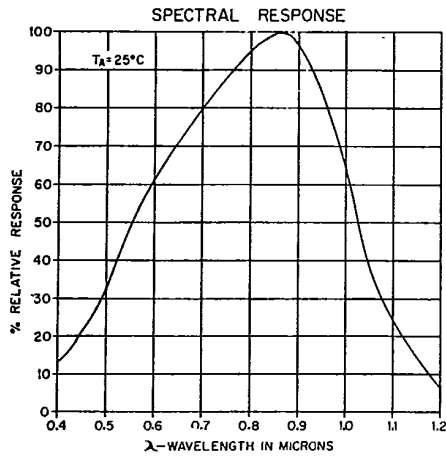
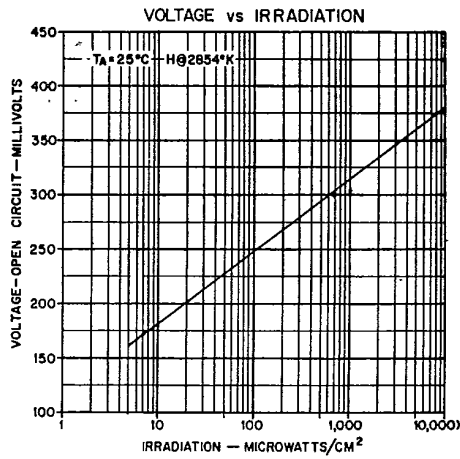
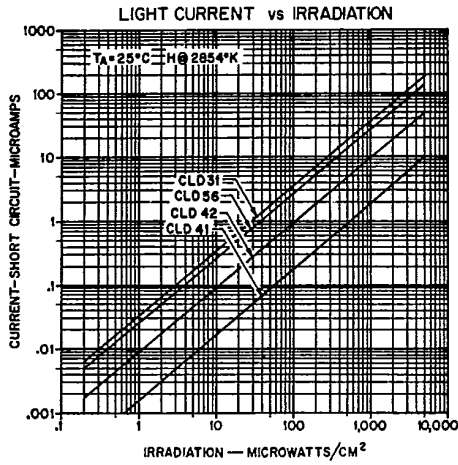
All dimensions ±.005 except as noted.

ELECTRICAL CHARACTERISTICS (25°C Free Air unless otherwise designated.)

Symbol	Characteristics	CLD41		CLD41BB		CLD42		CLD42BB		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
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
tr, tf	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



PHOTOVOLTAIC DIODE EQUIVALENT CIRCUIT

