CLD156

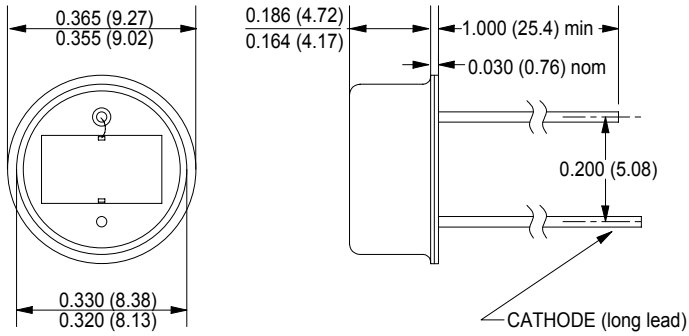
Large Active Area Silicon Planar photodiode

This product is tested to satisfy the conditions of both the CLD156 and the CLD156R.

Clairex® Technologies, Inc.

May, 2001





ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

features

- 100° acceptance angle
- 860nm peak response
- TO-5 hermetic package
- usable for visible through near-IR
- RoHS compliant

description

The CLD156 and CLD156R are 0.122" x 0.222" active area silicon photodiodes featuring high linearity and low dark current. The TO-5 header provides thermal environment for reliable operation over a wide temperature range. Wide acceptance angle permits use in IR air communications, ambient light detection, safety and monitoring, security systems, etc. For additional information, call Clairex.

absolute maximum ratings (T_A = 25°C unless otherwise stated)

storage temperature	-65°C to +150°C
operating temperature	-65°C to +150°C
lead soldering temperature[1]	260°
reverse voltage	30V
continuous power dissipation[2]	200mW

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 1.28mW/°C free air temperature to T_A = +150°C.

electrical characteristics (T_A = 25°C unless otherwise noted)

symbol	parameter	min	typ	max	units	test conditions
I_{SC}	Short-circuit current[3]	-	100	-	µA	V_{BIAS} = 0V, E_e = 5mW/cm^2
I_D	Dark current	-	-	50	nA	V_F = 100mV, E_e = 0
		-	-	50	nA	V_R = 15V, E_e = 0
V_O	Open circuit voltage[3]	-	0.35	-	V	E_e = 5mW/cm^2
V_{BR}	Reverse breakdown	25	-	-	V	I_R = 100µA
C_J	Junction capacitance	-	-	400	pF	V_{BIAS} = 0V, f = 1MHz
t_r, t_f	Output rise and fall time[4]	-	-	10	µs	R_L = 1kΩ
Θ_{HP}	Total angle at half sensitivity points	-	100	-	deg.	

notes: 3. Radiation source is a frosted tungsten lamp at a color temperature of 2854K or equivalent.
4. Radiation source is an AlGaAs IRED operating at a peak emission wavelength of 880nm and E_e = 20mW/cm^2.

Clairex reserves the right to make changes at any time to improve design and to provide the best possible product.

Revised 3/15/06

Clairex Technologies, Inc.
1301 East Plano Parkway
Plano, Texas 75074-8524
Phone: 972-265-4900
Fax: 972-265-4949
www.clairex.com