CLD185, CLD185R

Large Active Area
Silicon Planar photodiodes

Clairex® Technologies, Inc.

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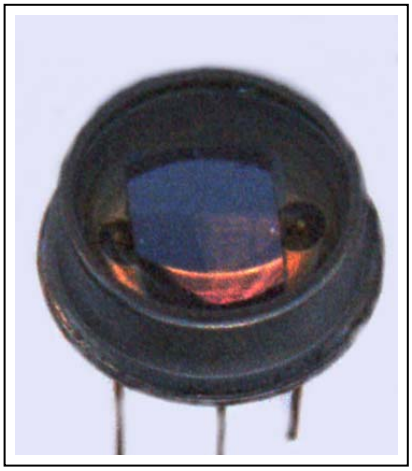

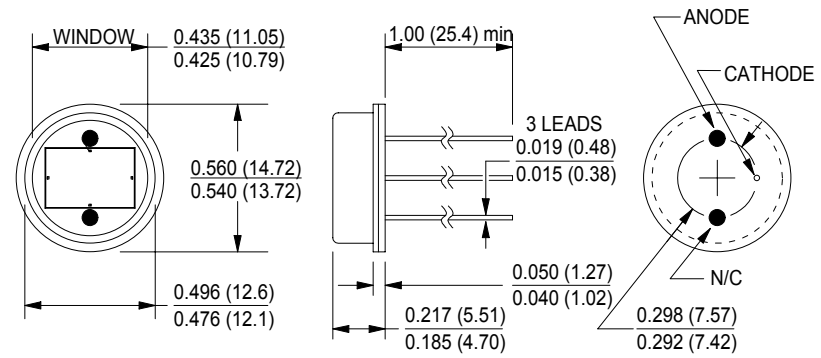

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)

features

- 120° acceptance angle
- 860nm peak response
- hermetic TO-8 package
- large photosensitive area
- usable for visible through near-IR

description

The CLD185 and CLD185R are 0.220" x 0.330" active area silicon photodiodes mounted in flat lensed TO-8 packages. 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 ..... -35°C to +150°C
operating temperature..... -35°C to +150°C
lead soldering temperature[1] .....260°C
maximum continuous power dissipation[2] 250mW

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 1.60mW/°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]	250	-	-	µA	V_{BIAS}=0V, E_e=5mW/cm^2
I_D	Dark current CLD185	-	-	100	nA	V_F = 100mV, E_e = 0
	CLD185R	-	-	50	nA	V_R = 15V, E_e = 0
V_{BR}	Reverse breakdown	25	-	-	V	I_R = 100µA
C_J	Junction capacitance[4]	-	-	250	pF	
t_r, t_f	Output rise and fall time[5]	-	-	40	µs	R_L = 1kΩ
Θ_{HP}	Total angle at half sensitivity points	-	120	-	deg.	

notes: 3. Light source is a frosted incandescent lamp with color temperature of 2854K.
4. Measured at zero bias, f = 1MHz.
5. Light source is an AlGaAs IRED operating at a peak emission wavelength of 880nm and E_e = 20mW/cm^2.

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