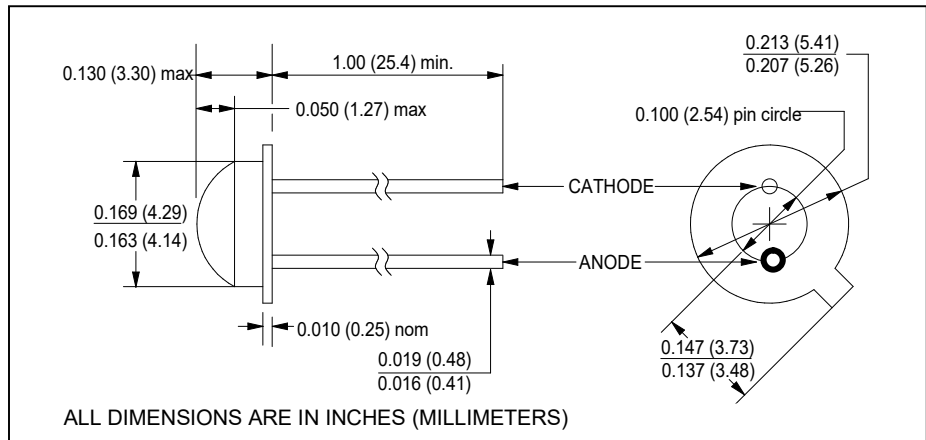
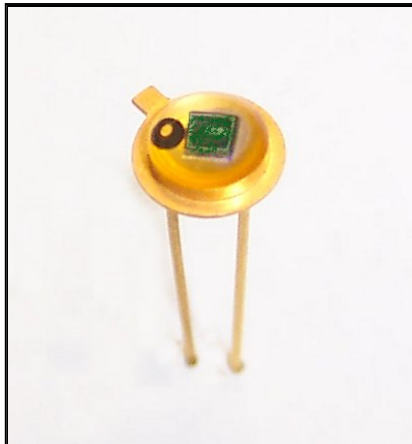


CLD240E

Silicon PIN Photodiode

13-2404A



features

- 140° acceptance angle
- 400 nm to 1100 nm response
- epoxy dome lens
- 1.346 μm x 1.346 μm active area
- usable for visible through near-IR

absolute maximum ratings ($T_A = 25^\circ\text{C}$ unless otherwise stated)

storage temperature	-55°C to +85°C
operating temperature	-55°C to +85°C
lead soldering temperature ⁽¹⁾	260°C
reverse voltage	35 V
maximum continuous power dissipation ⁽²⁾	200 mW

description

The CLD240E is a 1.346 μm x 1.346 μm active area silicon PIN photodiode. Wide acceptance angle permits use in IR air communications, ambient light detection, safety and monitoring, security systems, etc. For additional information, contact Clairex.

notes:

1. 0.06" (1.5 mm) from the header for 5 seconds maximum.
2. Derate linearly 2.67 mW/°C free air temperature to $T_A = +85^\circ\text{C}$.
3. $E_e = 1 \text{ mW}/\text{cm}^2$, $\lambda = 850 \text{ nm}$.

electrical characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)						
symbol	parameter	min	typ	max	units	test conditions
I_{SC}	Short-circuit current ⁽³⁾	10	13	-	μA	$V_{BIAS} = 0 \text{ V}$
I_D	Dark current	-	-	10	nA	$V_R = 10 \text{ V}$, $E_e = 0$
V_{BR}	Reverse breakdown	35	50	-	V	$I_R = 100 \mu\text{A}$, $E_e = 0$
λ_P	Peak sensing wavelength	-	940	-	nm	
C_J	Junction capacitance	-	14	-	pF	$V_{BIAS} = 0 \text{ V}$, $f = 1 \text{ MHz}$, $E_e = 0$
t_r , t_f	Output rise and fall time ⁽³⁾	-	15	20	ns	$R_L = 1 \text{ k}\Omega$
Θ_{HP}	Total angle at half sensitivity points	-	140	-	deg.	

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