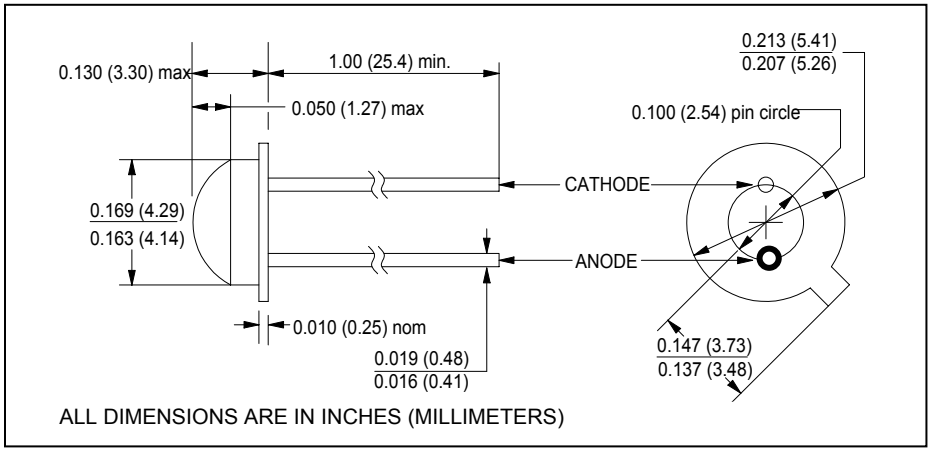
CLD140

Silicon Planar photodiode

Clairex® Technologies, Inc.

January, 2001



features

- 140° acceptance angle
- 860nm peak response
- epoxy dome lens
- large photosensitive area
- usable for visible through near-IR

description

The CLD140 is a 0.051" x 0.051" active area silicon photodiode. The TO-46 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	-55°C to +100°C
operating temperature	-55°C to +100°C
lead soldering temperature(1)	260°C
reverse voltage	30V
maximum continuous power dissipation	200mW(2)

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 2.66mW/°C free air temperature to T_A = +100°C.

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

symbol	parameter	min	typ	max	units	test conditions
I_{SC}	Short-circuit current(1)	6.0	-	-	µA	V_{BIAS} = 0V
I_D	Dark current	-	-	5.0	nA	V_F = 100mV, E_e = 0
V_O	Open circuit voltage(1)	-	0.35	-	V	
C_J	Junction capacitance	-	-	40	pF	V_{BIAS} = 0V, f = 1MHz
t_r, t_f	Output rise and fall time	-	-	3.0	µs	R_L = 1kΩ
Θ_{HP}	Total angle at half sensitivity points	-	140	-	deg.	

notes: 1. Radiation source is a tungsten lamp at a color temperature of 2854K and E_e = 5mW/cm^2 or equivalent.

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