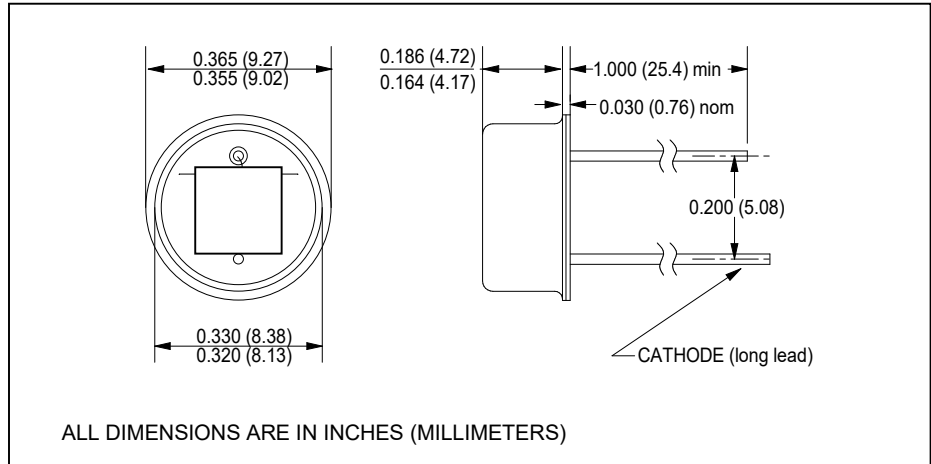


CLD160

Silicon Planar Photodiode

12-1600A



features

- 100° acceptance angle
- 860 nm peak response
- hermetic TO-39 package
- 3.175 mm x 3.175 mm active area
- usable for visible through near-IR

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

storage temperature.....	-40°C to +150°C
operating temperature.....	-40°C to +150°C
lead soldering temperature ⁽¹⁾	260°C
reverse voltage.....	30 V
maximum continuous power dissipation.....	250 mW ⁽²⁾

description

The CLD160 is 3.175 mm x 3.175 mm active area silicon photodiode mounted in a flat window TO-39 package. 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 2.25 mW/°C free air temperature to T_A = +150°C.
3. Light source is a frosted incandescent lamp with color temperature of 2854°K.
4. Light source is an AlGaAs IRED operating at a peak emission wavelength of 875 nm.

electrical characteristics (T _A = 25°C unless otherwise noted)						
symbol	parameter	min	typ	max	units	test conditions
I _{SC}	Short-circuit current ⁽³⁾	50	70	-	μA	V _{BIAS} = 0 V, E _e = 5 mW/cm ²
I _D	Dark current	-	-	100	nA	V _R = 10 V, E _e = 0
V _{BR}	Reverse breakdown	25	-	-	V	I _R = 100 μA
λ _P	Peak sensing wavelength	-	860	-	nm	
C _J	Junction capacitance	-	-	200	pF	V _{BIAS} = 0 V, f = 1 MHz
t _r , t _f	Output rise and fall time ⁽⁴⁾	-	-	12	μs	R _L = 1 kΩ
Θ _{HP}	Total angle at half sensitivity points	-	100	-	deg.	

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