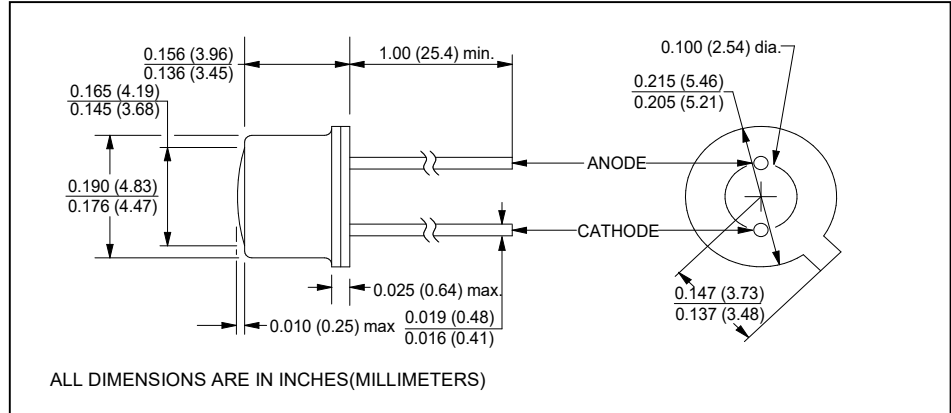


CLD340

High Temperature AlGaAs Photodiode



features

- usable at 150°C
- 880 nm peak wavelength
- narrow response range
- active area 0.78 mm²
- ±35° acceptance angle

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

storage temperature	-55°C to +150°C
operating temperature	-55°C to +150°C
lead soldering temperature ⁽¹⁾	260°C
reverse voltage	2 V
continuous power dissipation ⁽²⁾	150 mW

description

The CLD340 is a high temperature AlGaAs photodiode designed for sensitivity from 850 nm to 910 nm. It is a wavelength specific detector which eliminates the need for signal modulation or filtering of ambient light when used where background illumination could cause problems. The 0.89 mm x 0.89 mm chip is mounted on a TO-46 header with a flat window can attached.

notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 1 mW/°C from 25°C free air temperature to T_A = +150°C.
3. Light source is a AlGaAs IRED at 875 nm

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

symbol	parameter	min	typ	max	units	test conditions
I _{SC}	Short-circuit current ⁽³⁾	2.0	3.5	-	μA	V _{BIAS} = 0V, E _e = 1 mW/cm ²
I _D	Dark current	-	1	2	nA	V _R = 2 V, E _e = 0
V _{BR}	Reverse breakdown	20	-	-	V	I _R = 10 μA, E _e = 0
λ _P	Peak sensing wavelength	-	880	-	nm	
R _S	Shunt resistance	1	3	-	GΩ	V _R = 10 mV
C _j	Junction capacitance	-	170	-	pF	Zero bias, f = 1MHz
Θ _{HP}	Total angle at half sensitivity points	-	70	-	deg.	
t _r , t _f	Output rise and fall time	-	1.0	-	μs	R _L = 50 Ω, V _R = 5 V

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