

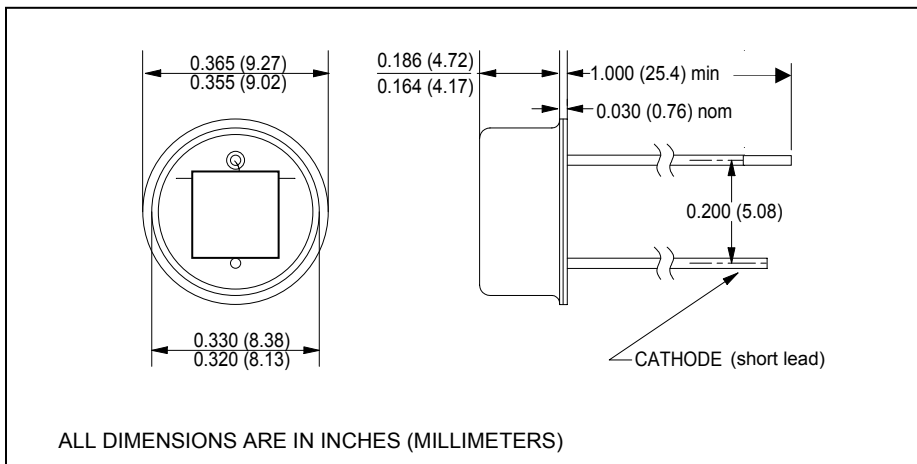
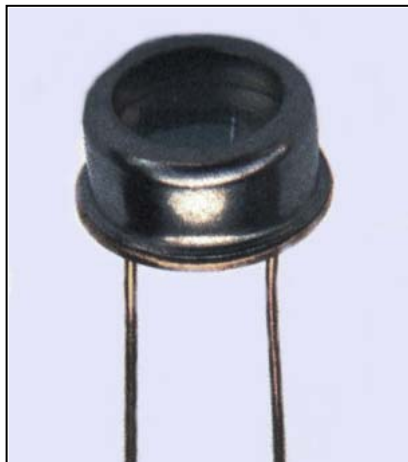
# CLD160

查询“CLD160”供应商  
Large Active Area

## Silicon Planar photodiode



July, 2001



### features

- 100° acceptance angle
- 860nm peak response
- hermetically sealed TO-5 package
- usable for visible through near-IR
- RoHS compliant

### description

The CLD160 is a 0.122" x 0.122" active area silicon photodiode mounted in a flat window TO-5 package. 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 ( $T_A = 25^\circ\text{C}$ unless otherwise stated)

|                                                   |                 |
|---------------------------------------------------|-----------------|
| storage temperature.....                          | -65°C to +150°C |
| operating temperature.....                        | -65°C to +150°C |
| lead soldering temperature <sup>(1)</sup> .....   | 260°C           |
| reverse voltage .....                             | 30V             |
| continuous power dissipation <sup>(2)</sup> ..... | 250mW           |

### notes:

1. 0.06" (1.5mm) from the header for 5 seconds maximum.
2. Derate linearly 1.60mW/°C free air temperature to  $T_A = +150^\circ\text{C}$ .

### electrical characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

| symbol        | parameter                                | min | typ  | max | units         | test conditions                                         |
|---------------|------------------------------------------|-----|------|-----|---------------|---------------------------------------------------------|
| $I_{SC}$      | Short-circuit current <sup>(3)</sup>     | -   | 50   | -   | $\mu\text{A}$ | $V_{BIAS} = 0\text{V}$ , $E_e = 5\text{mW}/\text{cm}^2$ |
| $I_D$         | Dark current                             | -   | -    | 5.0 | nA            | $V_R = 15\text{V}$ , $E_e = 0$                          |
| $V_O$         | Open circuit voltage <sup>(3)</sup>      | -   | 0.35 | -   | V             | $E_e = 5\text{mW}/\text{cm}^2$                          |
| $V_{BR}$      | Reverse breakdown                        | 25  | -    | -   | V             | $I_R = 100\mu\text{A}$                                  |
| $C_J$         | Junction capacitance                     | -   | -    | 200 | pF            | $V_{BIAS}=0\text{V}$ , $f = 1\text{MHz}$                |
| $t_r, t_f$    | Output rise and fall time <sup>(4)</sup> | -   | -    | 12  | $\mu\text{s}$ | $R_L = 1\text{k}\Omega$                                 |
| $\Theta_{HP}$ | Total angle at half sensitivity points   | -   | 100  | -   | deg.          |                                                         |

notes: 3. Radiation source is a frosted tungsten lamp with color temperature of 2854K or equivalent.

4. Radiation source is an AlGaAs IRED operating at a peak emission wavelength of 880nm and  $E_e = 20\text{mW}/\text{cm}^2$ .

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

Revised 3/15/06