

Clairex CFD470 Photodiode Datasheet

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The CFD470 contains a PIN silicon photodiode mounted on a TO-18 header. The devices are designed to self-align in the 0.228" (5.79mm) bore of a standard fiber-optic receptacle. Three crush ribs on the outside of the case provide press-fit installation and precise alignment. The CFD470 is designed to interface with multimode optical fibers from 50/125 to 200/300 microns.

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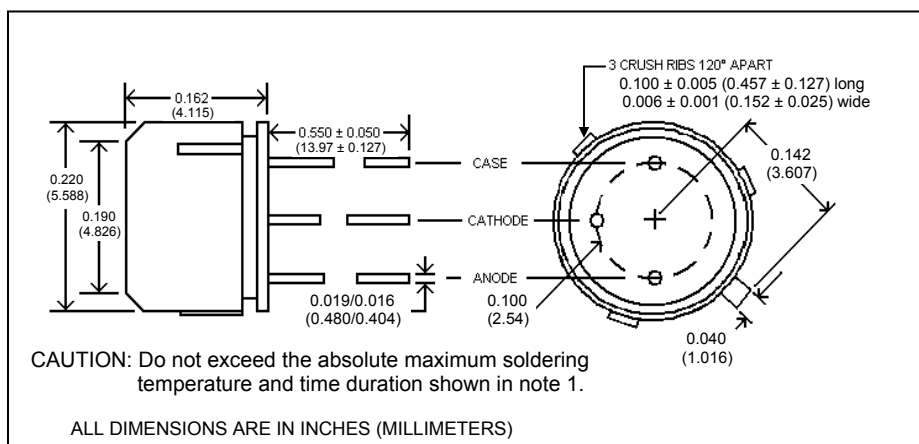
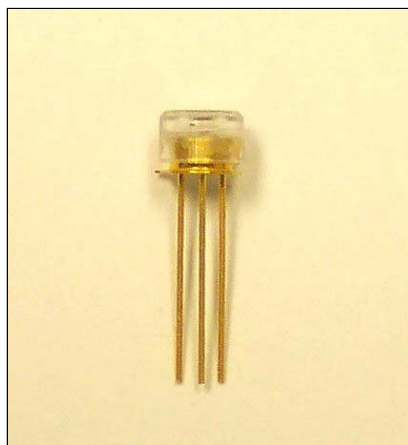
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CFD470

Fiber Optic PIN Photodiode



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features

- High speed, low capacitance
- Optimized for fiber-optic applications
- TO-18 header with plastic lens

description

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

storage temperature	-55°C to +115°C
operating temperature	-40°C to +100°C
lead soldering temperature ⁽¹⁾	260°C
reverse voltage	100VDC
continuous power dissipation	200mW ⁽²⁾

notes:

1. 1/16" (1.6mm) from case for 5 seconds maximum.
2. Derate linearly 2.13mW/°C from 25°C free air temperature to $T_A = +100^\circ\text{C}$.

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

symbol	parameter	min	typ	max	units	test conditions
R	Flux responsivity ⁽³⁾	0.33	0.50	-	A/W	$V_R = 5\text{V}$
I_D	Dark current	-	1.0	5.0	nA	$V_R = 5\text{V}$
λ_P	Peak response wavelength	-	880	-	nm	
t_r	Output rise time ⁽⁴⁾	-	6.0	-	ns	$V_R = 15\text{V}$
C_J	Junction capacitance	-	3.0	-	pF	$V_R = 20\text{V}$
FoV	Field of view	-	80	-	deg.	

notes: 3. Tested with 50/125 μm , 0.20 N. A. fiber @ 10 μW optical power with 850nm source. Responsivity levels apply to 50 μm , 62.5 μm and 100 μm core optical fibers.

4. $R_L = 50\Omega$, 10% - 90%.

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

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