



AC6201 Series

Analog PIN Photodiode in TO Package

Description

The AC6201 series are semiconductor InAlGaAs analog PIN photodiode designed for forward path and return path analog CATV, and Fiber-To-The-Home (FTTH) applications. It features low distortion, low capacitance and low noise.

Features

- High linearity, typical CSO at -75 dBc and CTB at -85 dBc
- Low capacitance, ≤ 0.6 pF
- 1 GHz flat response, ± 0.5 dB
- High responsivity (at 1310 nm and 1550 nm)
- Frequency response up to 1GHz

Applications

- Forward-path and return-path broadband video transport
- FTTH Triplexer
- FTTx receiver

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Operation Temperature Range	T_{OP}	-40	85	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-40	85	$^{\circ}\text{C}$
Input Power Saturation	P_{IN}	-	2	dBm
Reverse Voltage	V_R	-	30	V
Forward Current	I_F	-	10	mA

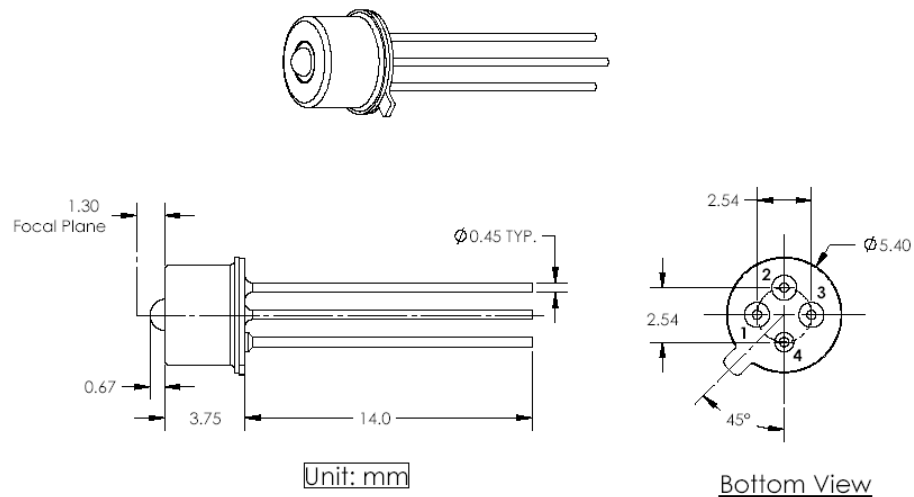
Electrical/Optical Characteristics (measured at 25°C,-15V)

Parameter	Symbol	Min.	Typ.	Max	Unit
Optical Wavelength Range	λ	1100	-	1600	nm
Responsivity	Resp.	-	>0.85 at 1310 nm >0.90 at 1550 nm	-	mA/mW mA/mW
Frequency Range	F	1	-	1000	MHz
Frequency Response Flatness	-	-	± 0.5	-	dB
Distortion Products: *					
Composite Second Order	CSO	-	≤ -75	-70	dBc
Composite Triple Beat	CTB	-	≤ -85	-80	dBc
Dark Current	I_D	-	-	5	nA
Capacitance	-	-	≤ 0.6	-	pF
Bandwidth	BW	-	1.0	-	GHz

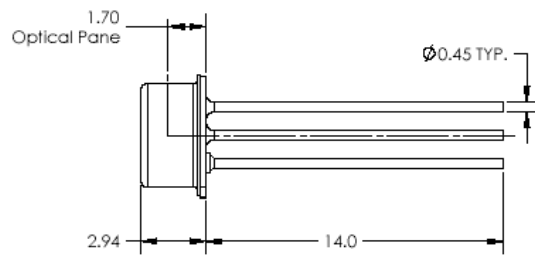
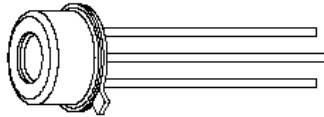
* Two laser test at 1310 nm. Each laser has 40% modulation index. Total received power is 0 dBm. Distortion products measured at 49 MHz, 199 MHz, 499 MHz and 850 MHz.

Ordering Information:**AC6201-X**

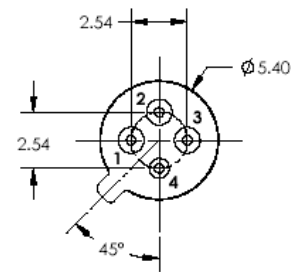
X = B for ball lens, X = F for flat window, Customer pin-out available on request.

Outline Drawing (Customer special order is available):**X = B (Ball lens)**

X = F (Flat window)

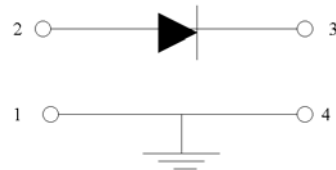


Unit: mm



Bottom View

Pin Number	Function
1	Ground
2	PD Anode
3	PD Cathode
4	Ground



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