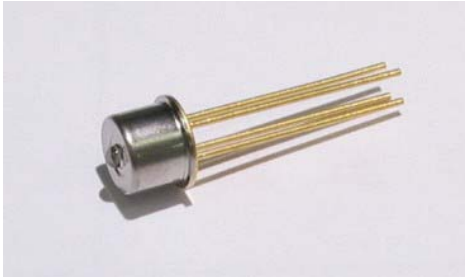




Preliminary

AC6220 Series

2.5 Gbps PIN-TIA in 4-pin TO Package



Features:

- Wide dynamic range with differential output
- Low power +3.3 V operation
- Wide operation temperature (-40°C to +85°C)
- High reliability
- Suitable for 2.5 Gbps applications needing TO packaging

Applications: Telecom and Datacom

Electrical/Optical Characteristics ($T_c=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power Supply	V_{cc}	3.0	3.3	3.6	V
Supply Current ⁽¹⁾	I_{cc}		42	58	mA
Bandwidth	BW	1.5		2.4	GHz
Low-Frequency Cut Off	LF		50		kHz
Rise Time/Fall Time ^(2,3)	Tr/Tf			200	ps
Wavelength	λ	1100		1650	nm
Single Ended Output Impedance	R_o		50		Ohms
Overload ^(3,4)	P_{over}	0	+3		dBm
Sensitivity ^(3,4)	P_{sens}		-23		dBm
Conversion Gain ⁽⁵⁾			8		kV/W
Differential Output Voltage ⁽⁶⁾	V_{diff}		350	500	mVpp

(1) No Loads

(2) 20% to 80% at -18 dBm input

(3) $\lambda=1550$ nm, 0.9A/W

(4) BER = 10^{-12} , PRBS $2^{31}-1$, ER = 10 dB

(5) Single ended output voltage (peak to peak) to optical power swing (OMA)

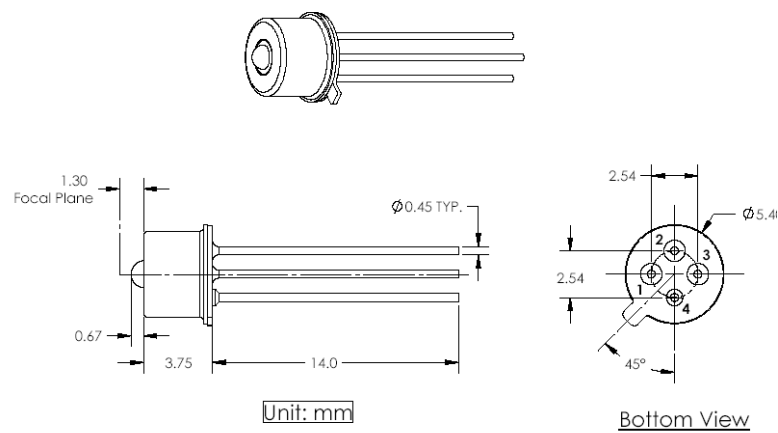
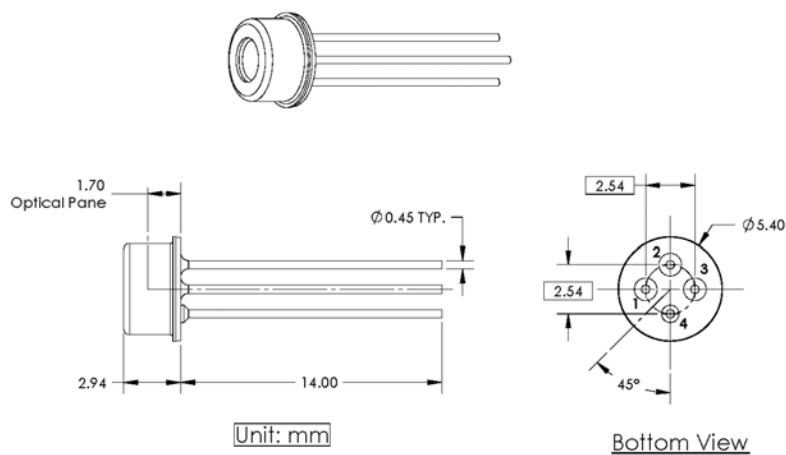
(6) Into 50 Ohms

Absolute Maximum Ratings:

Parameter	Symbol	Min	Max	Unit
Case Temperature	T_c	-40	+85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40	100	$^\circ\text{C}$
Humidity Range	RH	5	95	%
Amplifier Bias Voltage	V_{ccmax}		5	V
Input Optical Power	P_{max}		+6	dBm
Load Solder Temp. and Time			260 $^\circ\text{C}$, 10sec	

Pin-out Options:**X= B Pin-out Assignment Options (Customer specific pin-out available)**

4-pin Pin-out Assignment	
Pin #	"B"
1	Dout-P
2	Vcc
3	Dout-N
4	GND

Lens Options:**Y = S for ball lens, Y = F for flat window****Outline Drawing (Customer special order is available):****Y = S (ball lens)****Y = F (Flat Window)**

Ordering Information:

AC6220-X-Y

X = Pin-out: "B" (Custom pin-out available)

Y = TO-cap: "S" for ball lens, "F" for flat window

Example: **AC6220-B-S** is an Archcom 4-pin, 2.5 Gbps PIN-TIA TO-can with Type-B pin-out with ball lens.

Archcom Technology, Inc. reserves the right to make changes in design, specifications and other information at any time without prior notice. Information in this data sheet is believed to be reliable. However, no responsibility is assumed for possible inaccuracy or omission.