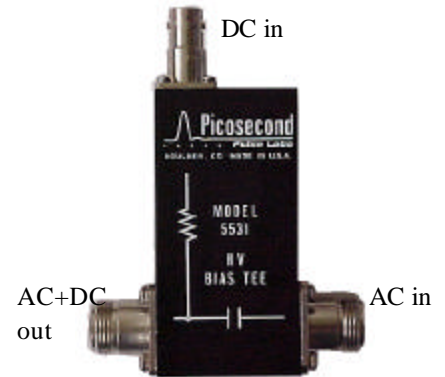


Model 5531 is a broadband coaxial bias insertion tee for low current applications such as biasing photodetectors. It is rated for 1.5kV. It is designed to pass fast Risetime pulses with minimum waveform distortion. The risetime is 35 ps with a -3dB bandwidth extending from 750kHz to 10GHz. See Notes [1-3].

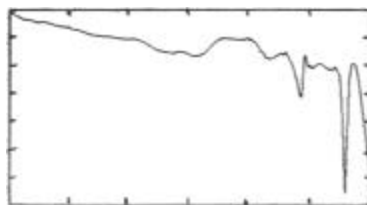


<b>Risetime (10%-90%)</b>	35 ps, 45 ps max.	<b>DC Voltage</b>	1.5 kV max.
<b>Bandwidth (-3 dB)</b>	10 GHz	<b>Resistance</b>	3 k $\Omega$
<b>Low Frequency (-3 dB)</b>	750 kHz	<b>DC Current</b>	20 mA max.
<b>Insertion Loss (0.01 – 1 GHz)</b>	0.3 dB 0.8 dB max.	<b>Isolation (AC-DC)</b>	>20 dB
<b>Capacitance</b>	2.2 nF, -20%, +80%	<b>Cap. Volt Coeff.</b>	-30% @ 1 kV
<b>Impedance</b>	50 $\Omega$	<b>RF Connectors</b>	N jacks (f)
<b>Ref. Coeff. (35 ps TDR)</b>	$\pm 8\%$ , $t < 200$ ps $-2.5\%$ , $t > 200$ ps	<b>DC Connector</b>	SHV
<b>Return Loss</b>	$0.1 < f < 8$ GHz $RL > 15$ dB -1 dB/GHz*f(GHz)	<b>Dimensions</b>	3" x 3.8" x 1" (7.6 x 9.7 x 2.5 cm)
<b>Warranty</b>	One year. See Terms and Conditions of Sale for details		

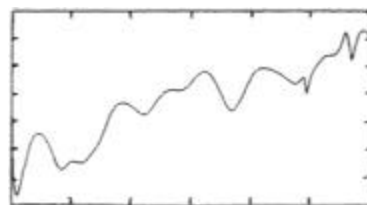
### Ordering Information

Model Number	Connector Configuration *
5531-901	N jacks (f) on AC & AC+DC, SHV on DC

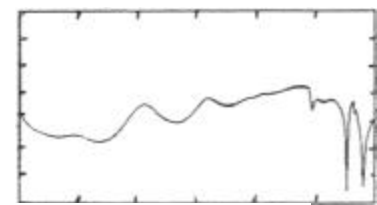
\* Other connector combinations are available on request.



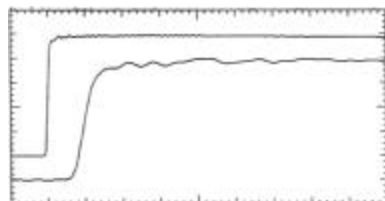
1 dB/div and 2 GHz/div  
Insertion Loss



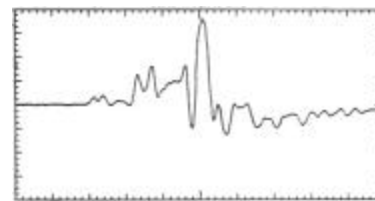
5 dB/div and 2 GHz/div  
Return Loss



10 dB/div and 2 GHz/div  
Isolation (AC-DC)



20%/div, 500 ps/div and 50 ps/div  
Response to 20 ps risetime input step



2.5% rho/div and 200 ps/div  
35 ps TDR of AC port

### Notes

- [1] Parameters listed are typical values. They are guaranteed only when maximum and / or minimum limits are given.
- [2] 20 ps risetime step response and TDR waveform measured using an HP-54124A, 20 GHz, and 17.5 ps digital sampling oscilloscope.
- [3] Frequency response measured using a Wiltron 5447A, 10 MHz - 20 GHz network analyzer.