

# Specifications

# 317 Broadband Amplifier

Bandwidth	10 kHz - 2.5 GHz	- 3 dB at 1 GHz
Gain	38 ± 1.5 dB 80 V / V	non-inverting, 50 Ω load
Gain Flatness	± 0.75 dB	500 kHz - 2 GHz
Noise Figure	4.8 dB	10 MHz - 2 GHz
Equivalent Input Noise Voltage	0.78 nV / √ Hz	including 0.45 nV / √ Hz from a 50 Ω source
Output at 1dB Gain Compression	+15 dBm	3.5 Vp-p, 10 MHz - 2.5 GHz
Maximum Input for Linear Operation	approx. ± 22 mV	
Harmonic Distortion	- 55 dB	0 dBm out, 10 MHz - 1.25 GHz
Third Order Intercept Point	+ 28 dBm	at 300 MHz
Impedance	50 Ω	a.c. coupled
Input Return Loss	15 dB	10 MHz - 2 GHz
	13 dB	2 - 2.5 GHz
Output Return Loss	13 dB	10 MHz - 2.5 GHz
Reverse Isolation	44 dB	10 MHz - 2.5 GHz
Rise Time	120 psec	typical
Group Delay Variation	± 30 psec	45 MHz - 2.5 GHz

Connectors: Type N

Input Damage Level:  
 D.C. ± 1V  
 R.F. - 22 dBm  
 Pulse ± 25 mV

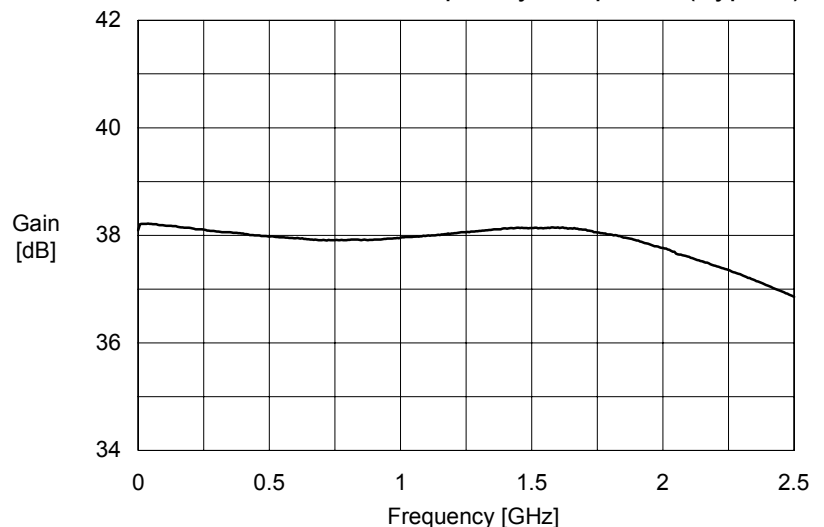
Temperature Range:  
 Operating: 0 to + 55 °C  
 Storage: - 25 to + 75 °C

Power Requirements:  
 115 / 230 V AC, ± 10%  
 50 - 60 Hz, 11 VA

Size: 3.6 × 4.3 × 7.2" (H × W × D)  
 91 × 109 × 183 mm

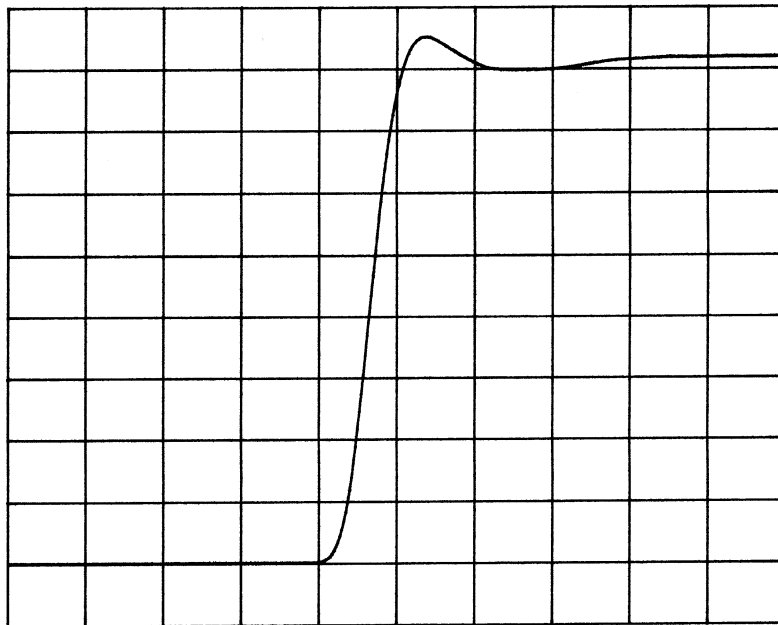
Net Weight: 3.3 lb / 1.5 kg

Frequency Response (Typical)



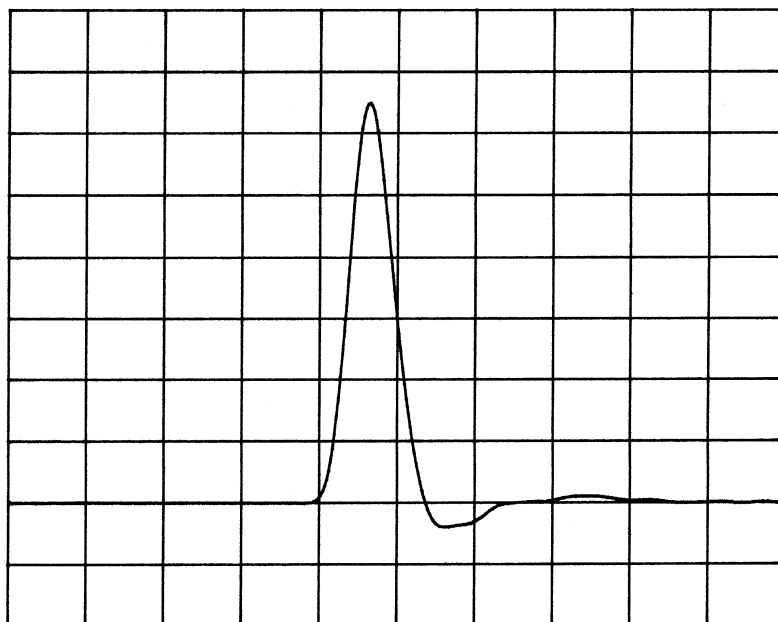
DATA SUBJECT TO CHANGE

317 Amplifier  
Time Domain



Horizontal: 200 ps / div  
Vertical: 10 units / div

Step Response



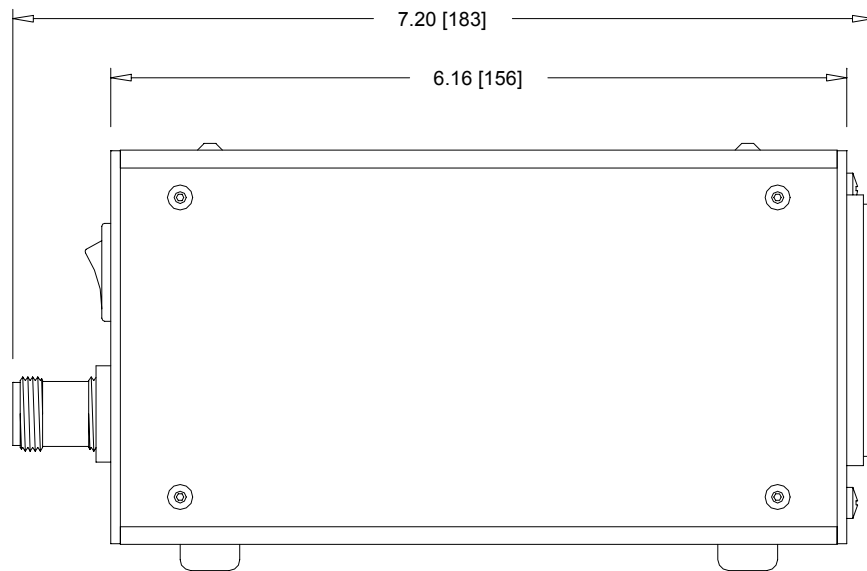
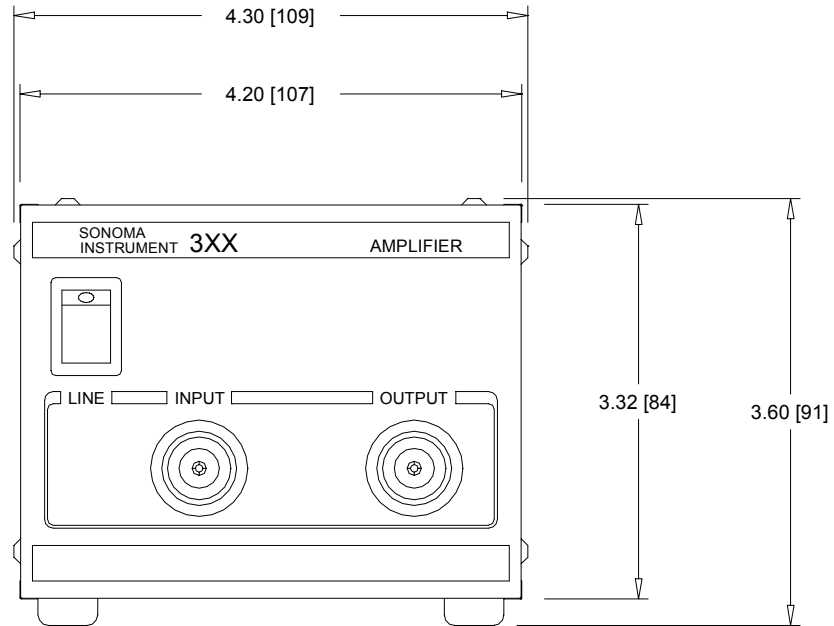
Horizontal: 200 ps / div  
Vertical: 5 units / div

Pulse Response

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# Outline Drawing

inch [mm]



DATA SUBJECT TO CHANGE

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