MHW592

CASE 714-02

WIDEBAND HYBRID AMPLIFIER

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	V_{DC}	28	Vdc
Input Power	P_{in}	5.0	dBm
Operating Case Temperature Range	T_C	−20 to +90	°C
Storage Temperature Range	T_{stg}	−40 to +100	°C

ELECTRICAL CHARACTERISTICS (V_{DC} = 24 Vdc, Z_o = 50 Ω, T_C = 25°C. All characteristics guaranteed over bandwidth listed under "Frequency Range," unless specified otherwise.)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	1.0	—	250	MHz
Power Gain	G_p	33.5	35	36.5	dB
Gain Flatness	F	—	—	±1.0	dB
Voltage Standing Wave Ratio, In/Out	VSWR				—
(f = 1.0–30 MHz)		—	1.5:1	—	
(f = 30–250 MHz)		—	2:1	—	
1 dB Compression	P1				mW
(f = 30 MHz)		750	900	—	
(f = 100 MHz)		—	900	—	
(f = 250 MHz)		—	750	—	
Peak Envelope Power	PEP				mW
(IMD3 = −30 dB, f = 30 MHz)		700	850	—	
(IMD3 = −30 dB, f = 100 MHz)		—	850	—	
(IMD3 = −30 dB, f = 250 MHz)		—	600	—	
Noise Figure	NF				dB
(f = 30 MHz)		—	3.6	5.0	
(f = 100 MHz)		—	3.7	—	
(f = 250 MHz)		—	3.9	—	
DC Voltage	V_{DC}	—	24	28	V
DC Current	I_{DC}	—	300	340	mA

FIGURE 1 – POWER GAIN versus FREQUENCY

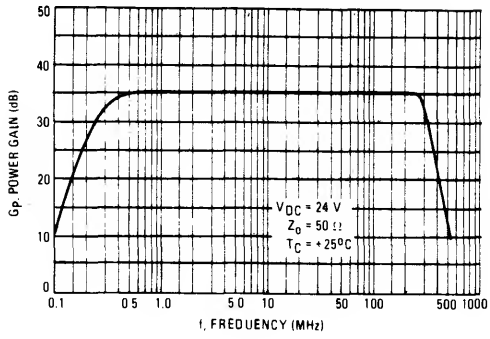


FIGURE 2 – POWER GAIN versus FREQUENCY

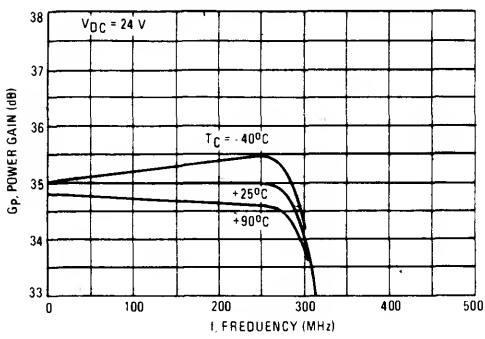


FIGURE 3 – POWER GAIN versus SUPPLY VOLTAGE

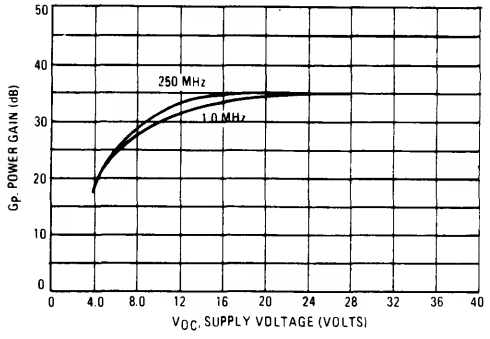


FIGURE 4 – NOISE FIGURE versus SUPPLY VOLTAGE

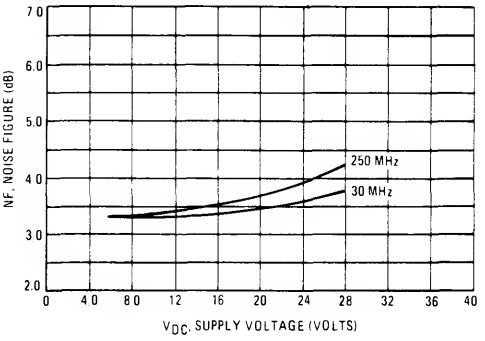


FIGURE 5 – OUTPUT POWER versus INPUT POWER

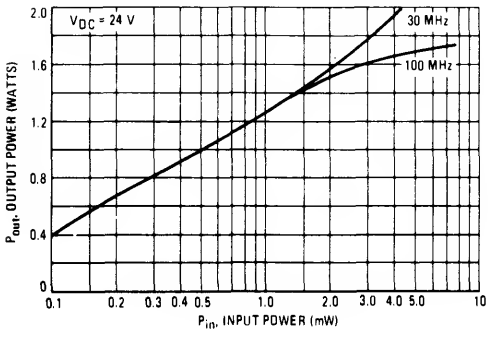
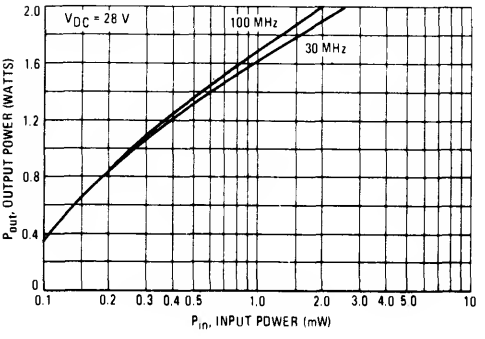


FIGURE 6 – OUTPUT POWER versus INPUT POWER



7

FIGURE 7 – INTERMODULATION DISTORTION versus OUTPUT POWER

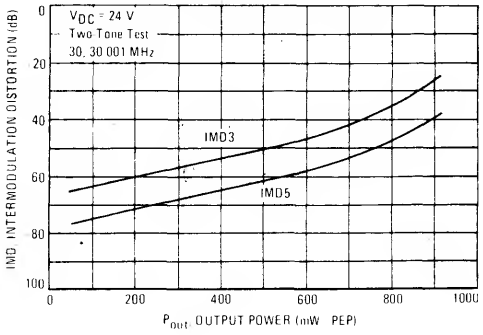


FIGURE 8 – INTERMODULATION DISTORTION versus OUTPUT POWER

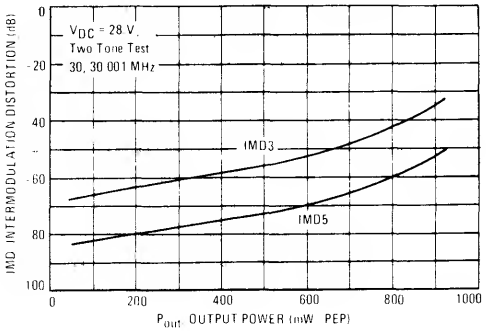
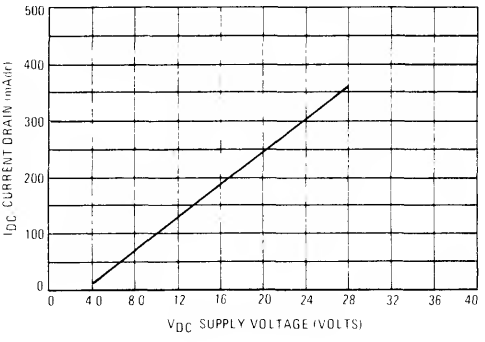


FIGURE 9 – DC CURRENT DRAIN versus SUPPLY VOLTAGE



7