

Plug-In

Amplifier

AMP-25G**50Ω Low Power 10 to 2500 MHz****Features**

- wideband, 10 to 2500 MHz
- general purpose gain block
- +15V at 35mA typical
- hermetic, TO-8 can

Applications

- military and high reliability
- small signal amplifier
- buffer amplifier



CASE STYLE: PP120

Amplifier Electrical Specifications

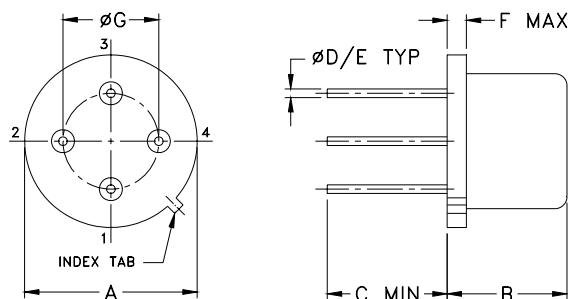
MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	f_L	f_U	Min.	Flatness Max.	Output (1 dB Compr.) Typ.	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
AMP-25G	10	800	18	±1.4	12.2	+13	3.0	+26	1.4	1.2	15	55
	800	1600	15	±1.6	12.5	+13	3.0	+28	1.6	1.2	15	55
	1600	2500	15	±1.0	10.0	+13	4.5	+22	1.8	1.3	15	55

Pin Connections

RF IN	2
RF OUT	4
DC	1
GROUND	3
CASE GROUND	3

Maximum Ratings

Operating Temperature	-54°C to 85°C
Storage Temperature	-55°C to 100°C
DC Voltage	+17V Max.
Permanent damage may occur if any of these limits are exceeded.	

Outline Drawing**Outline Dimensions (inch/mm)**

A	B	C	D	E	F	G	wt
.50	.21	.15	.016	.020	.04	.300	grams
12.70	5.33	3.81	0.41	0.51	1.02	7.62	1.5

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
 C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

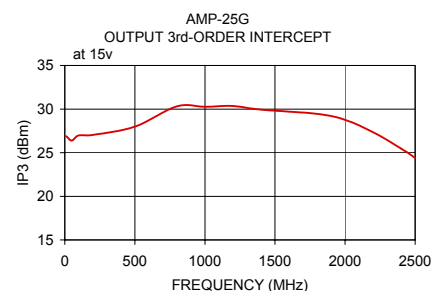
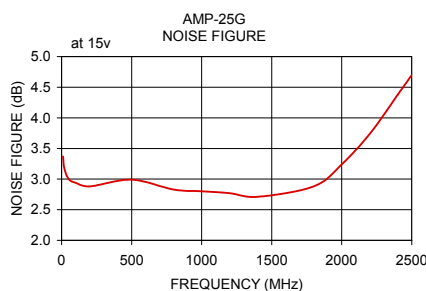
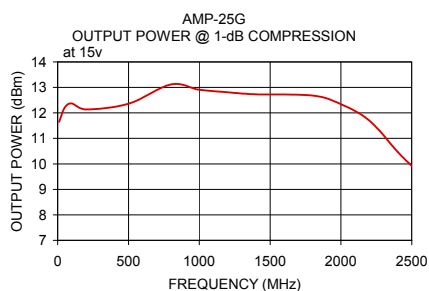
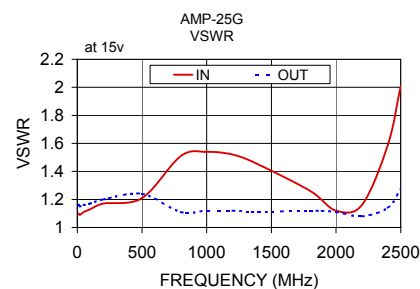
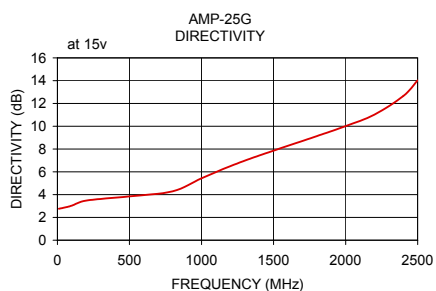
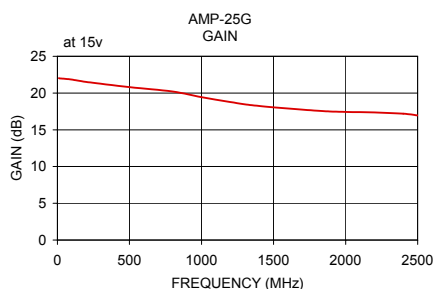


NON-CATALOG

Typical Performance Data/Curves

AMP-25G

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
	15V		IN	OUT		15V	
10.00	22.02	2.76	1.10	1.16	3.37	11.65	26.90
20.00	21.99	2.78	1.09	1.15	3.17	11.79	26.75
50.00	21.95	2.87	1.11	1.16	3.00	12.21	26.39
100.00	21.83	3.04	1.13	1.17	2.94	12.37	26.99
200.00	21.51	3.48	1.17	1.20	2.88	12.14	27.04
500.00	20.81	3.85	1.21	1.24	2.99	12.36	28.00
800.00	20.21	4.29	1.51	1.11	2.83	13.12	30.32
1000.00	19.44	5.43	1.54	1.12	2.80	12.91	30.26
1200.00	18.78	6.49	1.52	1.12	2.77	12.81	30.35
1400.00	18.25	7.44	1.45	1.11	2.71	12.73	29.94
1800.00	17.59	9.13	1.26	1.12	2.88	12.68	29.45
2000.00	17.44	10.01	1.12	1.11	3.24	12.34	28.76
2200.00	17.36	11.02	1.16	1.08	3.74	11.70	27.35
2400.00	17.19	12.65	1.59	1.14	4.38	10.47	25.47
2500.00	16.95	14.03	2.01	1.27	4.70	9.92	24.40



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Amplifier

AMP-25G

Typical Performance Data

FREQUENCY (MHz)	GAIN (dB) 15V	DIRECTIVITY (dB) 15V	VSWR IN (:1) 15V	VSWR OUT (:1) 15V	NOISE FIGURE (dB) 15V	Pout at 1dB Comp. (dBm) 15V	FREQUENCY (MHz)	Output IP3 (dBm) 15V
10.0	21.36	2.94	1.22	1.03	3.37	11.65	10.0	26.90
15.0	21.34	2.96	1.22	1.03	3.18	11.73	20.0	26.75
20.0	21.33	2.95	1.22	1.03	3.11	11.74	50.0	26.39
25.0	21.33	2.98	1.22	1.03	3.08	11.79	100.0	26.99
28.0	21.33	2.99	1.22	1.03	3.05	11.79	200.0	27.04
30.0	21.33	2.98	1.22	1.03	3.04	11.79	500.0	28.00
50.0	21.29	3.07	1.22	1.04	3.02	12.21	800.0	30.32
100.0	21.19	3.20	1.23	1.05	3.02	12.33	1000.0	30.26
200.0	20.88	3.60	1.25	1.08	2.95	12.21	1200.0	30.35
500.0	20.21	4.06	1.17	1.13	3.03	12.19	1400.0	29.94
800.0	19.80	4.31	1.40	1.04	2.85	12.95	1800.0	29.45
1000.0	19.09	5.45	1.44	1.06	2.83	12.80	2000.0	28.76
1200.0	18.48	6.52	1.42	1.05	2.77	12.72	2200.0	27.35
1250.0	18.34	6.78	1.40	1.05	2.78	12.68	2400.0	25.47
1300.0	18.21	6.96	1.39	1.04	2.75	12.66	2500.0	24.40
1400.0	17.98	7.51	1.36	1.02	2.75	12.73		
1600.0	17.60	8.34	1.28	1.02	2.77	12.80		
1800.0	17.33	9.24	1.18	1.06	2.98	12.89		
2000.0	17.16	10.10	1.06	1.09	3.33	12.68		
2200.0	17.04	10.99	1.16	1.09	3.84	12.33		
2400.0	16.82	12.30	1.54	1.09	4.35	11.42		
2500.0	16.56	13.43	1.90	1.20	4.60	10.51		

REV. X1
AMP-25G
070515
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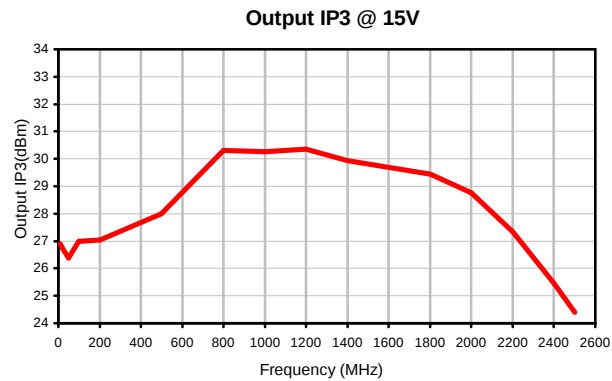
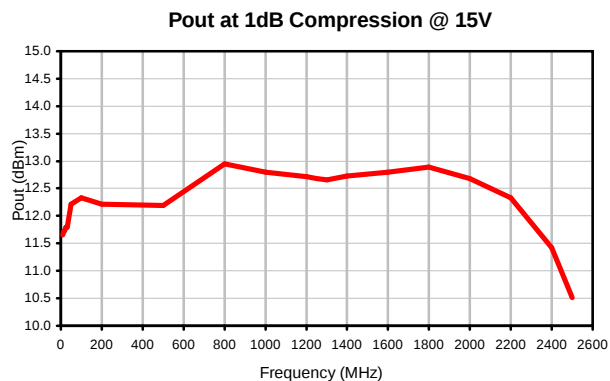
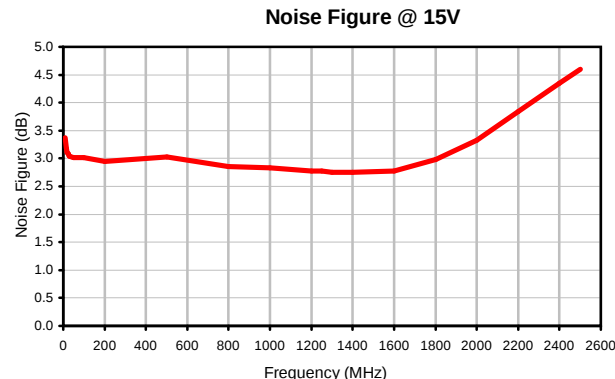
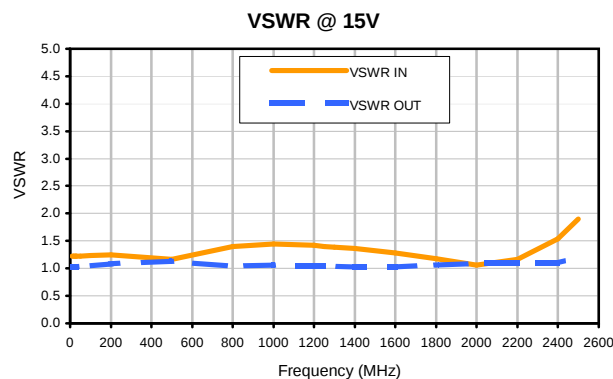
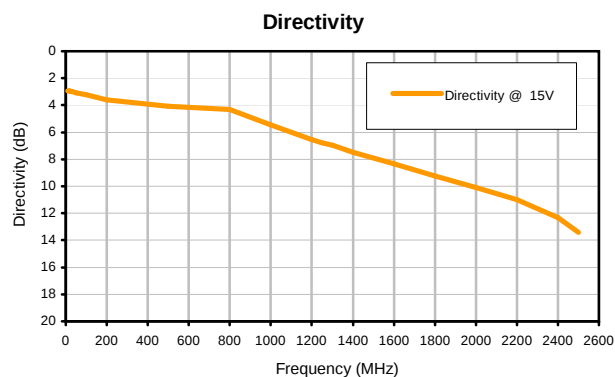
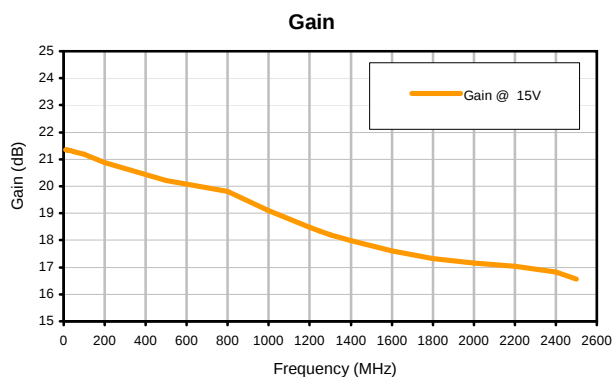
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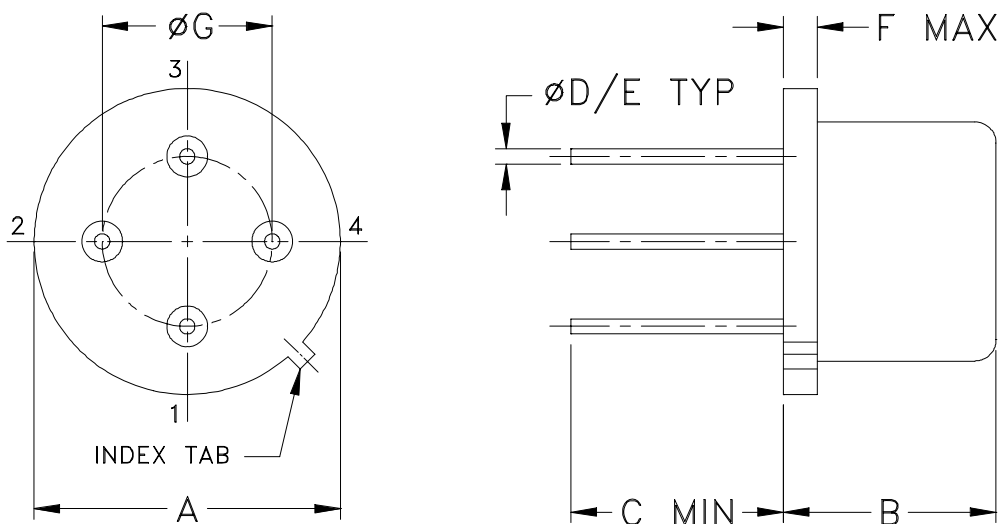
Typical Performance Curves



Outline Dimensions

PP120

PP230



CASE#	A	B	C	D	E	F	G	WT, GRAM
PP120	.50 (12.70)	.21 (5.33)	.15 (3.81)	.016 (.41)	.020 (.51)	.04 (1.02)	.300 (7.62)	1.5
PP230		.250 (6.35)	.24 (6.10)					1.8

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Header material: C.R.S. or kovar.
Pin material: # 52 alloy or kovar.
Cover material: Nickel.
- Pin finish: Gold plate 25 μ inches (.64 microns) min.
- For pin designations see specifications data sheet.
- Pin numbers do not appear on unit, for reference only.



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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-54° to 85°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 10 cycles	MIL-STD-202, Method 107, Condition A, except +100°C & 10 cycles
Constant Acceleration	5000g, Y1 axis	MIL-STD-883, Method 2001, Condition A, except Y1 axis only
Solderability	10X Magnification	J-STD-002, 95% Coverage
Resistance to Solder Heat	260°C for 10 seconds	MIL-STD-202, Method 210, Condition B
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215
Gross Leak	125°C Bubble Test	MIL-STD-202, Method 112, Condition D