

300 W - FM Amplifier

Designed for FM radio transposers and transmitters, this amplifier incorporates microstrip technology and MOSFET transistor to enhance ruggedness and reliability.

87.5 ÷ 108 MHz

48 Volts

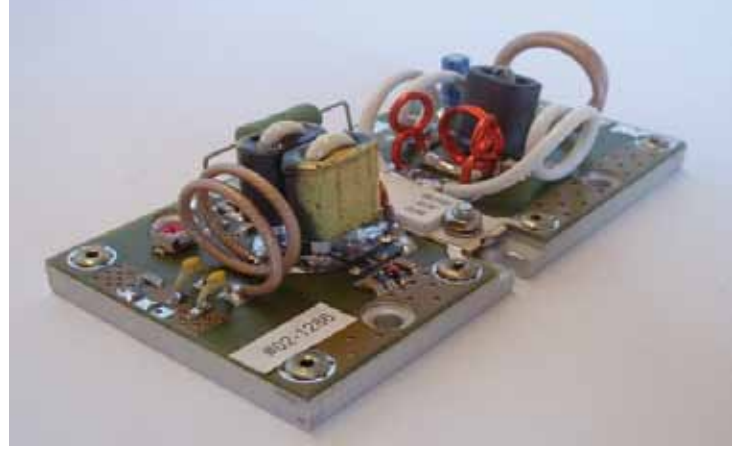
Input/Output 50 Ohm/50 Ohm

P_{out} : 300 W min

Gain : 17 dB min.

Class B

Devices: SD2932 or equivalent



This picture is a mere example, it does not bind the provided product

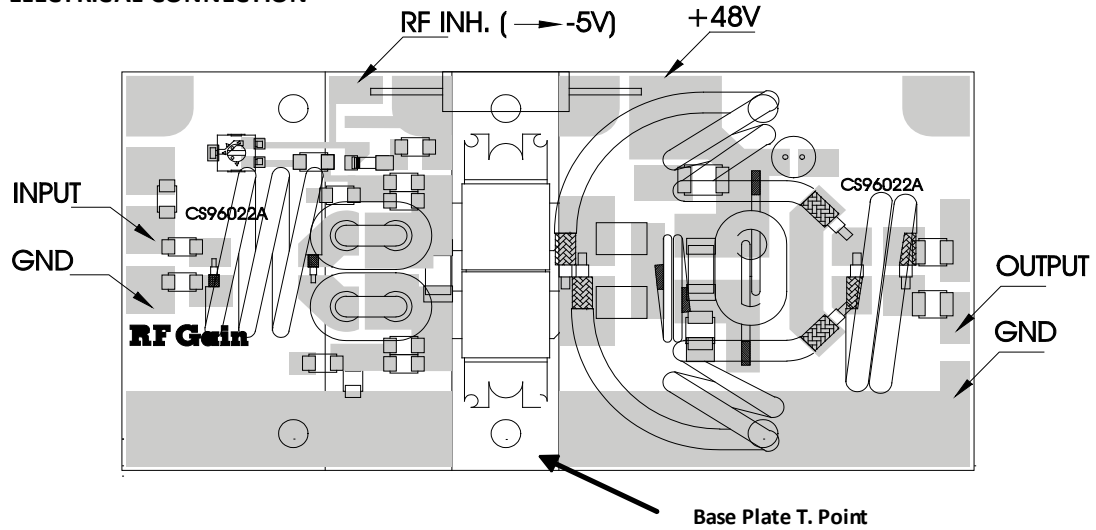
ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

Symbol	Parameter	Value	Unit
V _s	Drain Voltage Supply	50	V dc
I _s	Supply Current	12	A dc
VSWR	Load Mismatch (all phase angles, T _c =40°C, I _d =10A)	3:1	
T _{stg}	Storage Temperature Range	-30 + 100	°C
T _c	Operating Temperature	-10 +50	°C

ELECTRICAL SPECIFICATIONS (Base Plate T. = 45 °C, 50 Ohm loaded, V_d = 48 V)

ELECTRICAL CHARACTERISTICS at T _{base plate} = 25 °C.				
Characteristics	Min	Typ.	Max	Unit
Operating Frequency Range	87.5		108	MHz
Fundamental Output Power	300			W
Power Input		3	7	W
Power Gain (300W output)	17	20		dB
Collector Efficiency (Load 50 Ohm)	60	65		%
Input VSWR		1.5:1	1.7:1	
Insertion Phase Variation (Unit to Unit)		±10		Degrees
Power Gain Variation (Unit to Unit)		±1		dB
F2 Second Harmonic	-24			dB
F3 Third Harmonic	-18			dB

ELECTRICAL CONNECTION



HEATSINK MOUNTING/HARDWARE

1. HEATSINK TOOLING

- Planarity: typical value 0.8μ
- Roughness: better than 0.03 mm

2. THERMAL COMPOUND

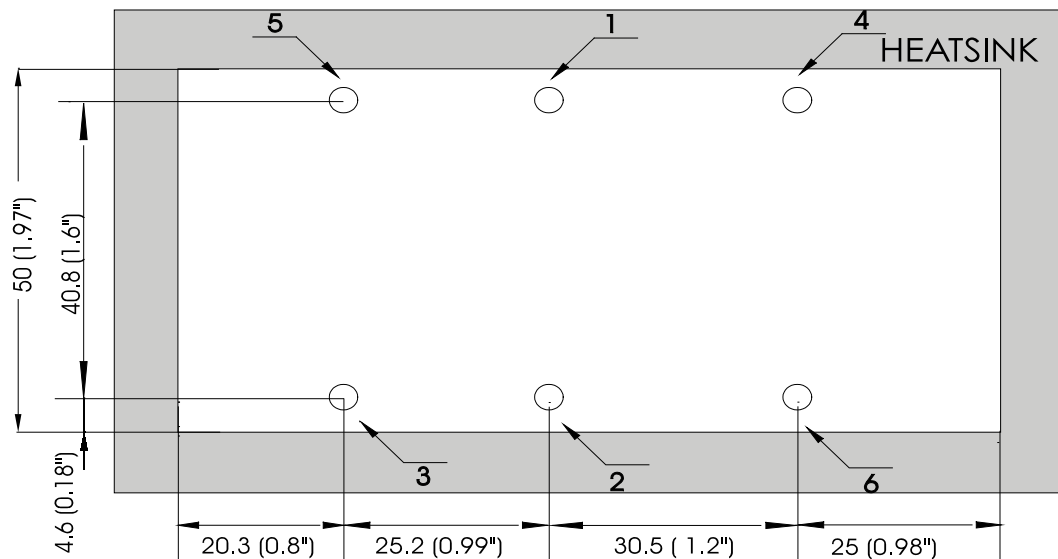
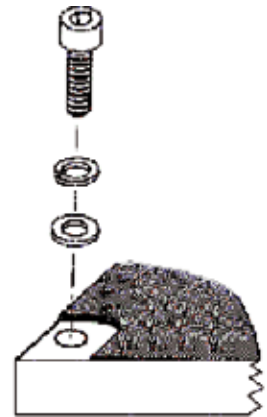
- Paste with silicones
- Thickness: optimum between 0.06 mm and 0.15 mm, on the whole back surface of the amplifier.

3. SCREWS

- M3 hexagon socket head cap screws
- The recommended Torque is 12 Kg/cm for M3 type screws and 10 Kg/cm for M2.5 type screws.

4. TIGHTENING ORDER

- See next figure:



Dimensions mm (inch)



FMAMP300-R3

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