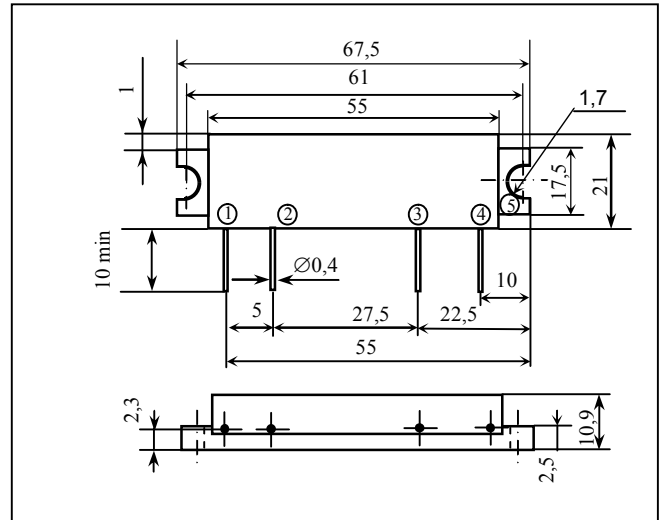


Power RF Amplifier

Power = 16 Watts
 Bandwidth = 300 to 308 MHz
 Gain = 29dB Vdd=12.5 Volts
 50 Ohms Input/Output Impedances
 Copper Flange

Description

The UM117-3 is 16 Watt FM amplifier module covering a bandwidth of 300-308 MHz. This dual stage amplifier is specifically designed for Land Mobile UHF band portable radio applications.



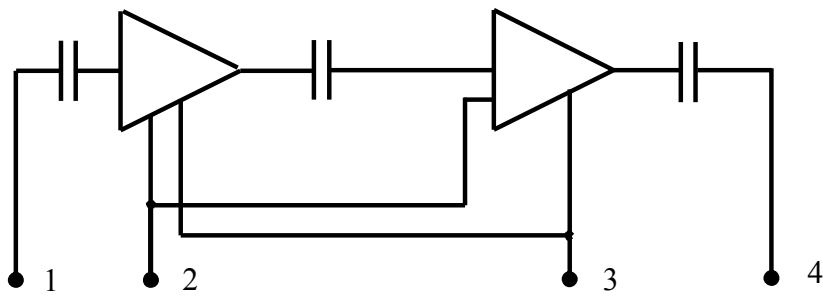
Absolute Maximum Ratings (T=25°C)

Parameter	Symbol	Value	Unit
DC supply Voltage	VDD	16.5	V
DC gate Voltage, Power control	VGG	5.0	V
Input Power	Pin	30	mW
Output Power	Pout	25	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-60 to +100	°C

Electrical Characteristics: (Tc = 25°C, Zs = Zl = 50 Ohms. Vdd = 12.5 Volts. Vgg = 5 Volts.)

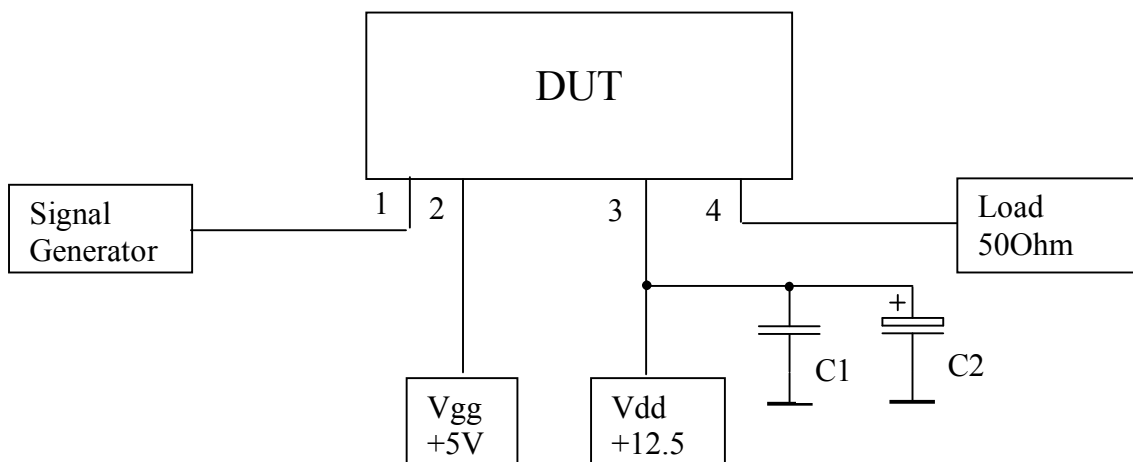
Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	300		308	MHz	50 Ohm load
Output Power	Pout	16	20		Watts	
Power Gain	PG	29	30		dB	
Total Efficiency	η	40	50		%	Po=16W, CW
2 nd Harmonic	F ₂		-40	-30	dBc	
3 rd Harmonic	F ₃		-40	-30	dBc	
Load Mismatch	Ψ	No degradation or destroy				Pin=20mW, Po=16W, VSWR =20

Block diagram



- 1- RF input
- 2- Gate Voltage (V_{gg}), Power Control
- 3- Drain Voltage (V_{dd})
- 4- RF Output (P_{out})
- 5- RF Ground (Case)

Test block diagram



- C1- 0.1uF
- C2- 100uF

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Specification is subject to change without notice