



Power RF Amplifiers

Power = 30.0 Watts

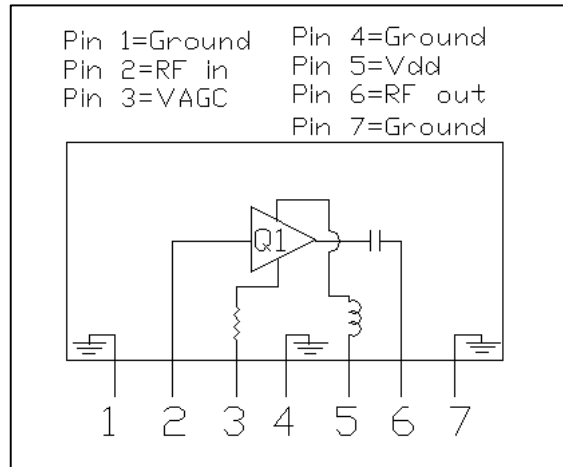
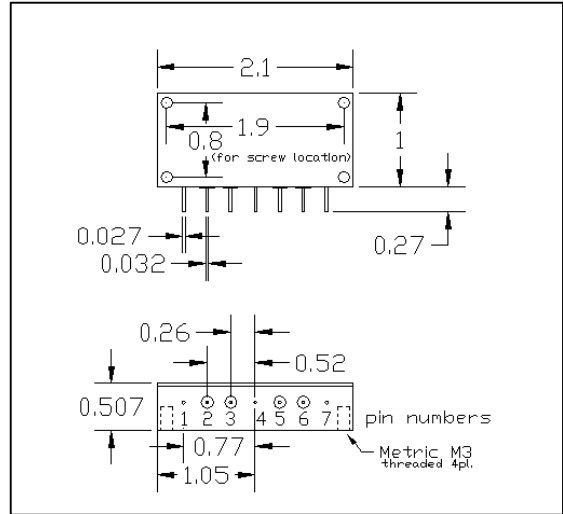
Bandwidth = 30 to 470 Mhz

Gain = 10.0 dB Vdd =28.0 Volts

50 ohms Input/Output Impedance

Description

The MBDQ01 is a 30 Watt, single stage amplifier module covering a bandwidth of 30-470 Mhz. This compact module design is suitable for military applications in a rugged environment. An ALC pin out is provided to control the output power of the module. The MADQ01 is designed as the input driver for the MBDQ01 module.



Absolute Maximum Ratings (T=25 °C)

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	32.0	V
DC supply Voltage 2	VDD2		V
AGC Voltage	VAGC	8.00	V
Input Power	Pin	6.00	W
Output Power	Pout	50.0	W
Operating Case Temp.	Tc	-20 to +85	°C
Storage Temperature	Tstg	-30 to +100	°C

Electrical Characteristics: (T=25 °C Zs=Zl=50 ohms. Vdd= 28.0 Volts)

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	30		470	Mhz	50 ohm load
Outut Power	Po	30.0			Watts	Idq = 1.20 Amps
Power Gain	PG	10.0			dB	@ Pout = 30.0 Watts
Total Efficiency	η	40			%	@ Pout = 30.0 Watts
2nd Harmonics	dso		-20.00		dBc	@ Pout = 30.0 W, Freq = 250 Mhz
Intermod - 2 tone	Ip3				dBm	Freq = 250 Mhz; AvePwr= W
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles

MBDQ01

