



Power RF Amplifiers

Power = 30.0 Watts

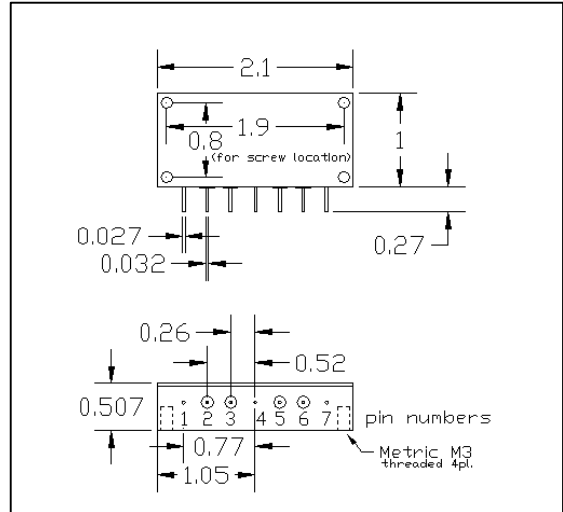
Bandwidth = 30 to 470 Mhz

Gain = 10.0 dB Vdd =28.0 Volts

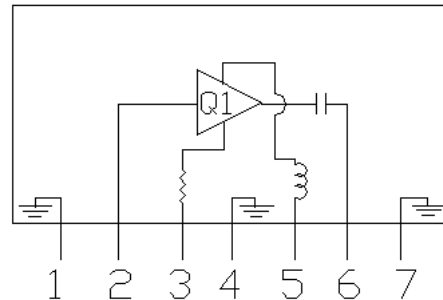
50 ohms Input/Output Impedance

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.



Pin 1=Ground Pin 4=Ground
 Pin 2=RF In Pin 5=Vdd
 Pin 3=VAGC Pin 6=RF out
 Pin 7=Ground



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

