



**Power RF Amplifiers**

Power = 30.0 Watts

Bandwidth = 30 to 470 Mhz

Gain = 10.0 dB Vdd =28.0 Volts

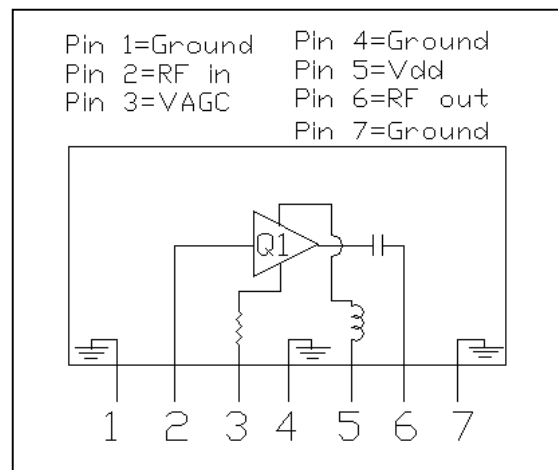
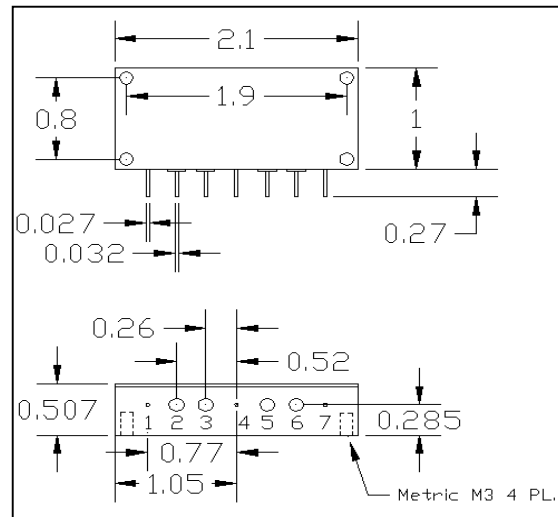
50 ohms Input/Output Impedance

**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 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	5.5	V
AGC Current	VAGCI	5.00	mA
Input Power	Pin	6.000	W
Output Power	Pout	50.0	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-45 to +100	°C



**Electrical Characteristics: ( T=25 °C Zs=Zl=50 ohms, Vdd = 28.0 Volts, Idq = 1.2 Amps )**

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	30		470	Mhz	50 ohm load
Output Power	Po	30.0			Watts	Pin = 34.8 dbm Vagc = 5.0 V
Power Gain	PG	10.0			dB	Pout = 30.0 Watts Vagc = 5.0 V
Total Efficiency	$\eta$	20			%	Pout = 30.0 Watts
2nd Harmonics	dso		-20.00		dBc	Pout = 30.0 Watts @ Mhz
Intermod - 2 tone	Im3				dBc	AvePwr= Watts
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles
Vagc Voltage	VAGC			5.0	V	Pin = 34.8 dBm, Pout =30.0 W
Pulse Response Time	Pr			4.0	uS	Pulse source: Vagc

# MBDQ01

