



**Power RF Amplifiers**

**Power = 15.0 Watts**

**Bandwidth = 30 to 512 Mhz**

**Gain = 25.0 dB Vdd =28.0 Volts**

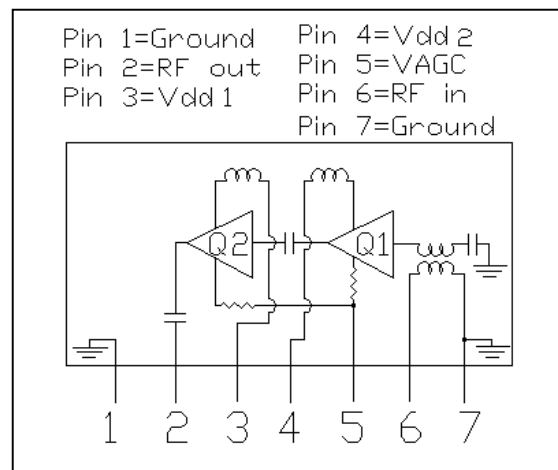
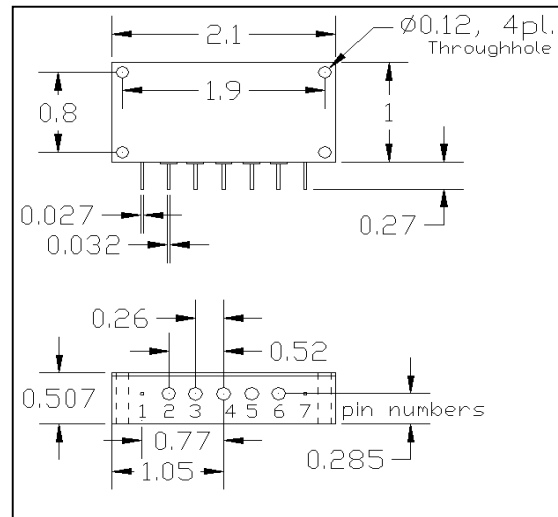
**50 ohms Input/Output Impedance**

**Description**

The MDDQ02 is a 15 Watt, 2 stage high gain amplifier module covering a bandwidth of 30-512 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 MDDQ02 may be used as the driver stage 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	9.0	V
AGC Current	VAGCI	5.00	mA
Input Power	Pin	0.05	W
Output Power	Pout	20.0	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 = 2.0 Amps )**

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	30		512	Mhz	50 ohm load
Output Power	Po	15.0			Watts	Pin = 13.0 dbm Vagc = 8.0 V
Power Gain	PG	25.0			dB	Pout = 15.0 Watts Vagc = 8.0 V
Total Efficiency	$\eta$	15			%	Pout = 15.0 Watts
2nd Harmonics	dso		-20.00		dBc	Pout = 15.0 Watts
Intermod - 2 tone	Im3				dBc	AvePwr= Watts
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles
Vagc Voltage	VAGC			8.0	V	Pin = 13.0 dBm, Pout =15.0 W
Pulse Response Time	Pr				uS	DC Blank on Vagc pin

# MDDQ02

