polyfet rf devices

MGMP01

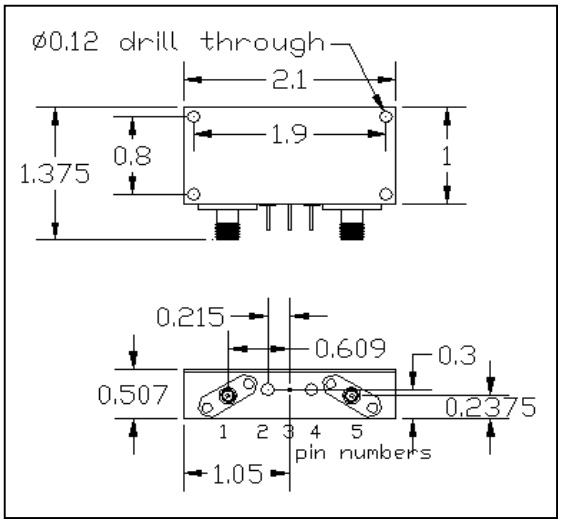
Power RF Amplifiers

Power = 1.0 Watts

Bandwidth = 225 to 400 Mhz

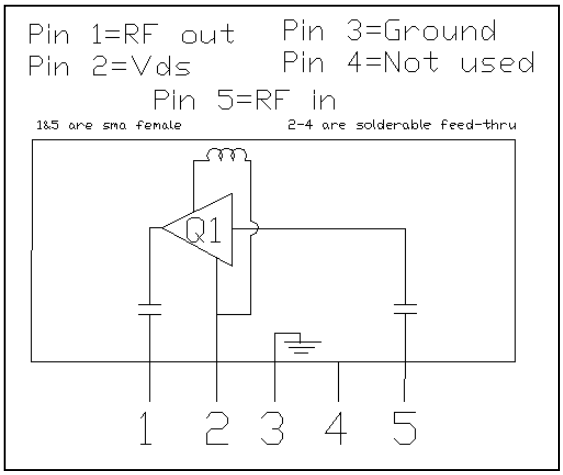
Gain = 18.0 dB Vdd = 28.0 Volts

50 ohms Input/Output Impedance



Description

The MGMP01 is a 1 Watt, linear, 10W P1dB, single stage high gain amplifier covering a bandwidth of 225-400 Mhz using SMA connectors for RF in and out. Input VSWR is <=1.5:1 and output VSWR is <=3:1. Module is unconditionally stable at all phase angles up to 10:1. External heat sink is required



Absolute Maximum Ratings (T=25 ^{o}C)

Parameter	*Symbol*	*Value*	*Unit*
DC supply Voltage 1	*VDD1*	32.0	*V*
DC supply Voltage 2	*VDD2*		*V*
AGC Voltage	*VAGC*		*V*
AGC Current	*VAGCI*		*mA*
Input Power	*Pin*	1.000	*W*
Output Power	*Pout*	40.0	*W*
Operating Case Temp.	*Tc*	-40 to +85	^{o}C
Storage Temperature	*Tstg*	-55 to +100	^{o}C

Electrical Characteristics: (T=25 ^{o}C Zs=Zl=50 ohms, Vdd = 28.0 Volts, Idq = 1.4 Amps)

Parameter	*Symbol*	*Min*	*Typical*	*Max*	*Unit*	*Test Conditions*
Frequency Range	*BW*	225		400	*Mhz*	*50 ohm load*
Outut Power	*Po*	1.0			*Watts*	*Pin =* 12.0 *dbm* *Vagc =* 0.0 *V*
Power Gain	*PG*	18.0			*dB*	*Pout =* 1.0 *Watts* *Vagc =* 0.0 *V*
Total Efficiency	η	2			*%*	*Pout =* 1.0 *Watts*
2nd Harmonics	*dso*		-45.00		*dBc*	*Pout =* 2.0 *Watts @* *Mhz*
Intermod - 2 tone	*Im3*	-40.00			*dBc*	*AvePwr=* 1.0 *Watts*
Load Mismatch Tolerance	*VSWR*	10:1			*Relative*	*All Phase Angles* *Pout =* 1.0 *Watts*
Vagc Voltage	*VAGC*				*V*	*Pin =* 12.0 *dBm, Pout =* 1.0 *W*
Pulse Responese Time	*Pr*				*uS*	*Pulse source*:

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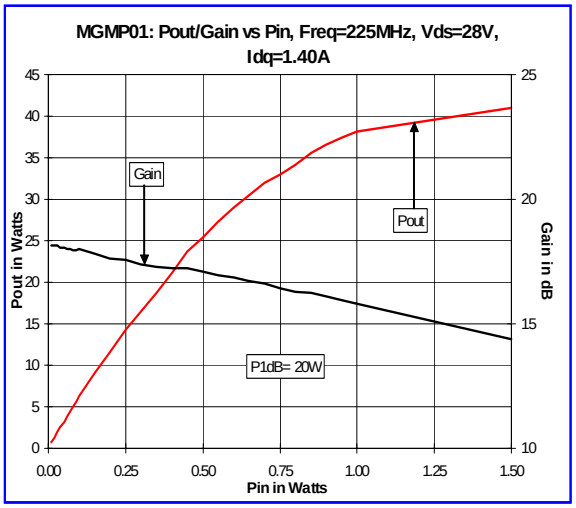
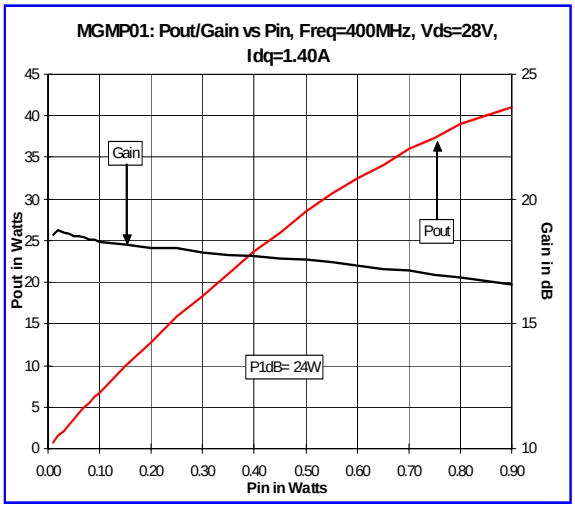
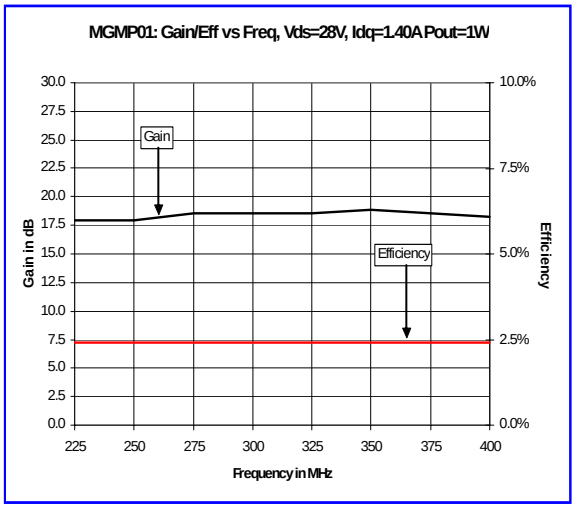
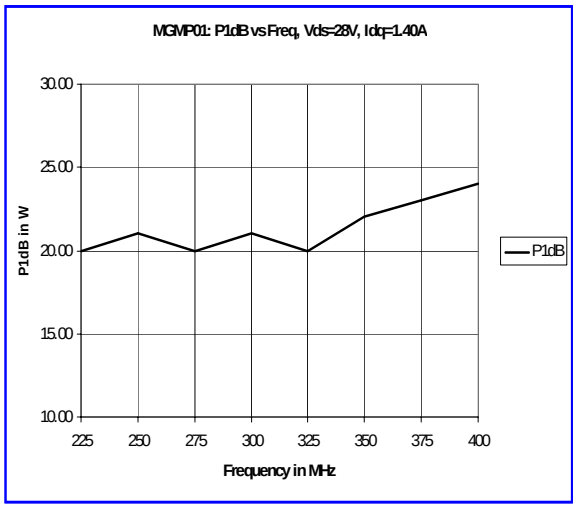
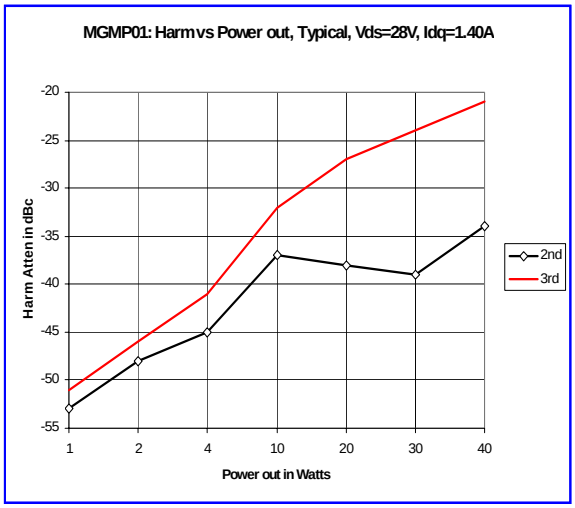
MGMP01

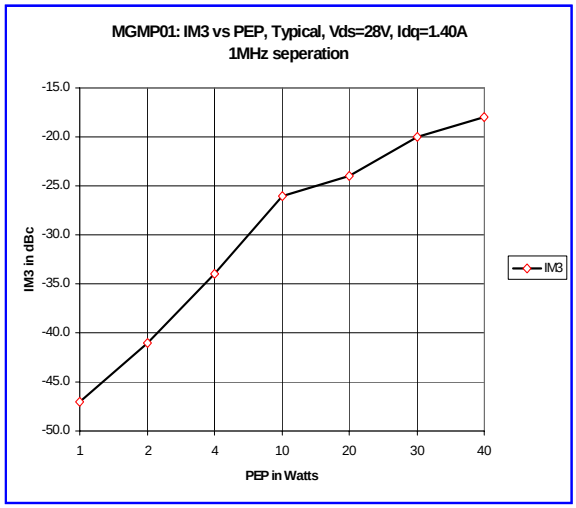












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