polyfet rf devices

PHM022

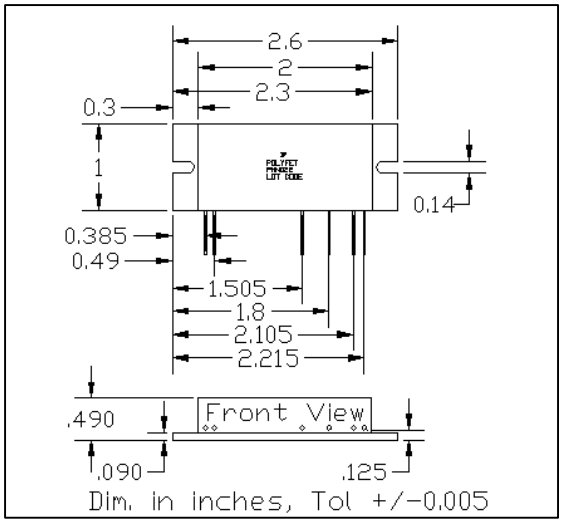
Power RF Amplifiers

Power = 10.0 Watts

Bandwidth = 300 to 512 Mhz

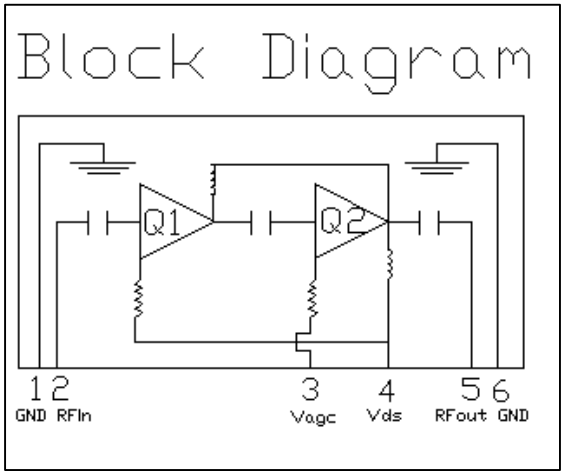
Gain = 25.0 dB Vdd = 28.0 Volts

50 ohms Input/Output Impedance



Description

The PHM022 is a 12 Watt FM / 4 Watt AM amplifier module covering a bandwidth of 300-512 Mhz. It has a high IP3 rating when operated in the AM mode. This dual stage amplifier is specifically designed for Tetra and Land Mobile UHF band portable radio applications.



Absolute Maximum Ratings (T=25 °C)

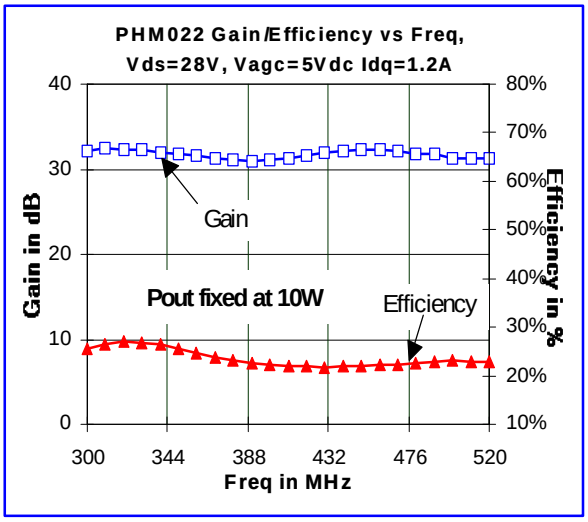
Parameter	*Symbol*	*Value*	*Unit*
DC supply Voltage 1	*VDD1*	32.0	*V*
DC supply Voltage 2	*VDD2*		*V*
AGC Voltage	*VAGC*	5.50	*V*
Input Power	*Pin*	0.05	*W*
Output Power	*Pout*	15.0	*W*
Operating Case Temp.	*Tc*	-20 to +70	*°C*
Storage Temperature	*Tstg*	-30 to +100	*°C*

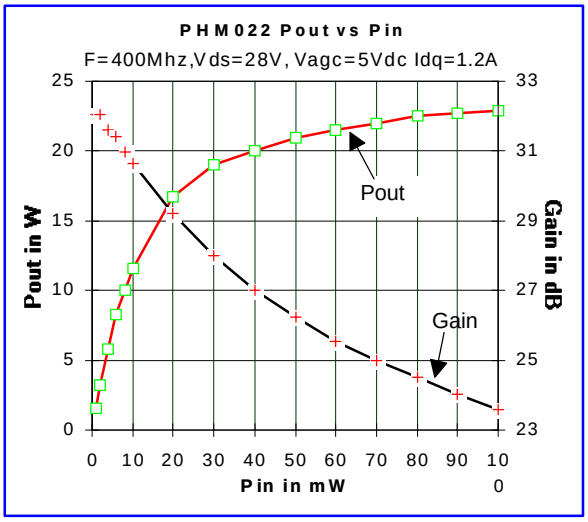
Electrical Characteristics: (T=25 °C Zs=Zl=50 ohms. Vdd= 28.0 Volts)

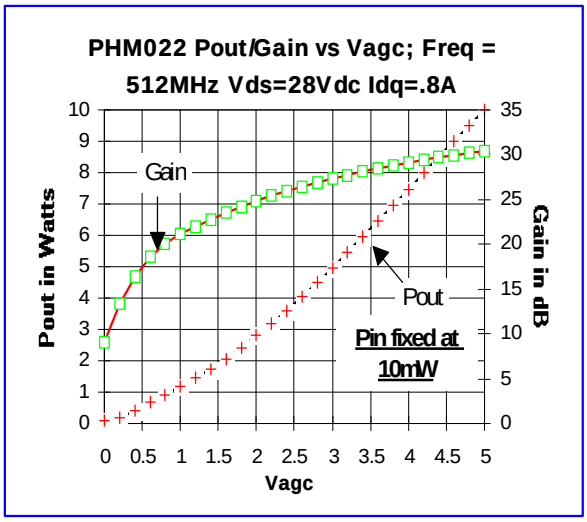
Parameter	*Symbol*	*Min*	*Typical*	*Max*	*Unit*	*Test Conditions*
Frequency Range	*BW*	300		512	*Mhz*	*50 ohm load*
Outut Power	*Po*	10.0			*Watts*	*Idq =* 1.20 *Amps*
Power Gain	*PG*	25.0			*dB*	*@ Pout =* 10.0 *Watts*
Total Efficiency	*h*	20			*%*	*@ Pout =* 10.0 *Watts*
2nd Harmonics	*dso*		-20.00		*dBc*	*@ Pout =* 10.0 *W. Freq =* 406 *Mhz*
Intermod - 2 tone	*Ip3*	45.00			*dBm*	*Freq =* 406 *Mhz; AvePwr=* 2.0 *W*
Load Mismatch Tolerance	*VSWR*	10:1			*Relative*	*All Phase Angles*

1110 Avenida Acaso, Camarillo, Ca 93012 Tel:(805) 484-4210 FAX: (805) 484-3393 EMAIL:selling@polyfet.com URL:www.polyfet.com

PHM022







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