



polyfet rf devices

PHM021

Power RF Amplifiers

Power = 10.0 Watts

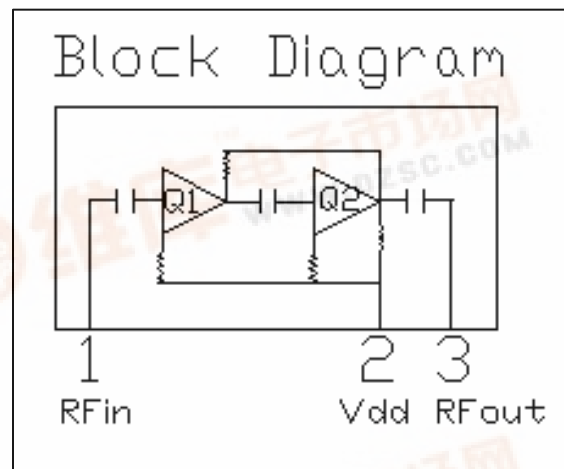
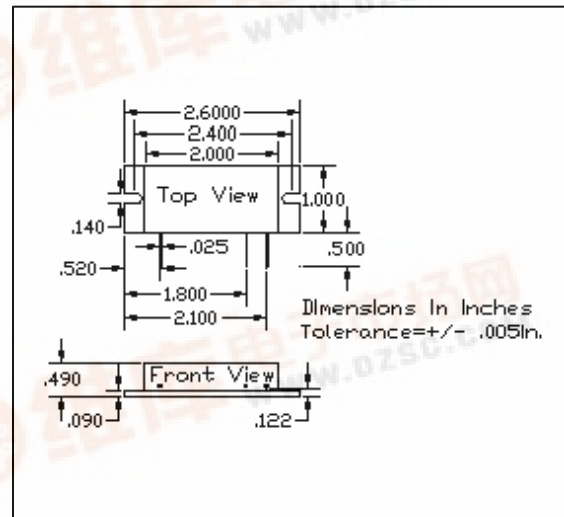
Bandwidth = 136 to 174 Mhz

Gain = 25.0 dB Vdd = 28.0 Volts

50 ohms Input/Output Impedance

Description

The PHM021 is a 10 Watt FM / 2 Watt AM amplifier module covering a bandwidth of 136-174 Mhz. It has a high IP3 rating when operated in the AM mode. This dual stage amplifier is specifically designed for Land Mobile UHF band portable radio and paging applications. External Gate bias pin option is available upon request.



Absolute Maximum Ratings (T=25 °C)

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	32.0	V
DC supply Voltage 2	VDD2		V
Input Power	Pin	0.02	W
Output Power	Pout	13.0	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	136		174	Mhz	50 ohm load
Output Power	Po	10.0			Watts	Idq = 1.2 Amps
Power Gain	PG	25.0			dB	@ Pout=10.0 Watts
Total Efficiency	h	25			%	@ Pout=10.0 Watts
2nd Harmonics	dso				dBc	@ Pout=10.0 W. Freq = 155 Mhz
Intermod - 2 tone	Ip3	50.00			dBm	Freq = 155 Mhz; AvePwr= 1.0 W
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles