



Power RF Amplifiers

Power = 5.0 Watts

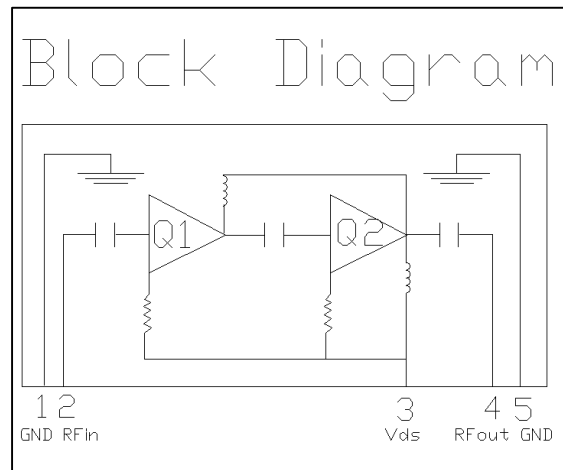
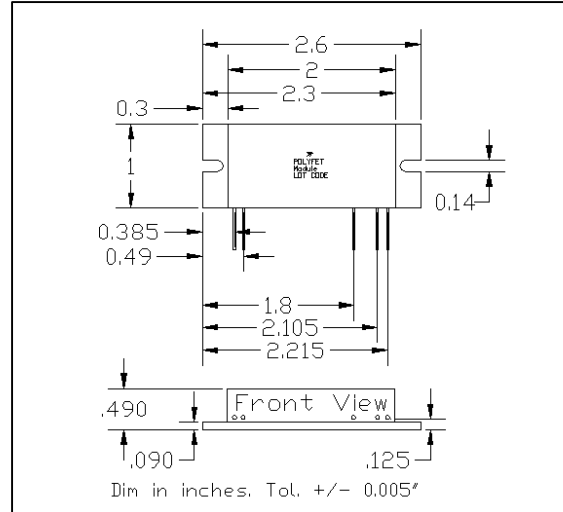
Bandwidth = 225 to 400 Mhz

Gain = 25.0 dB Vdd =28.0 Volts

50 ohms Input/Output Impedance

Description

The PHM020 is a 5 Watt FM / 1 Watt AM amplifier module covering a bandwidth of 225-400 Mhz. It has a high harmonic rating when operated in the AM mode. This dual stage amplifier is specifically designed for broad band portable radio 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 |
| AGC Voltage | VAGC | | V |
| Input Power | Pin | 0.02 | W |
| Output Power | Pout | 10.0 | W |
| Operating Case Temp. | Tc | -20 to +85 | °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 | 225 | | 400 | Mhz | 50 ohm load |
| Outut Power | Po | 5.0 | | | Watts | Idq = 1.00 Amps |
| Power Gain | PG | 25.0 | | | dB | @ Pout = 5.0 Watts |
| Total Efficiency | h | 13 | | | % | @ Pout = 5.0 Watts |
| 2nd Harmonics | dso | | -30.00 | | dBc | @ Pout = 5.0 W, Freq = 312 Mhz |
| Intermod - 2 tone | Ip3 | | | | dBm | Freq = 312 Mhz; AvePwr= W |
| Load Mismatch Tolerance | VSWR | 10:1 | | | Relative | All Phase Angles |

PHM020

