



RF Power Module

Power = 64.0 Watts

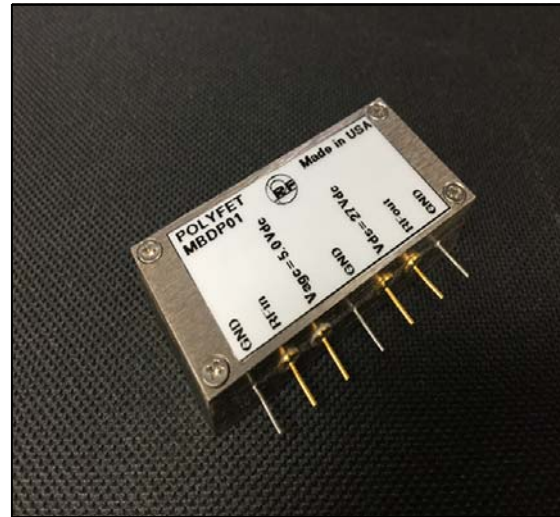
Bandwidth = 30.0 to 400 Mhz

Gain = 10.0 dB Vdd =27.0 Volts

50 ohms Input/Output Impedance

Description

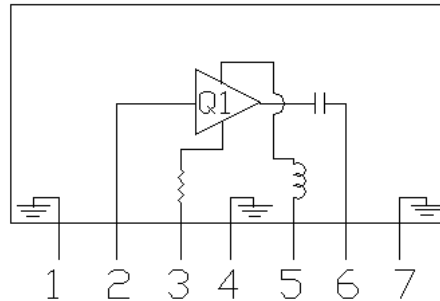
The MBDP01 is a 64 Watt, single stage amplifier module covering a bandwidth of 30-400 Mhz. This compact module design is suitable for military applications in a rugged environment. An ALC pin out is provided to control the output power, gain and blanking of the module.



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 | 5.5 | V |
| AGC Current | VAGCI | 6.00 | mA |
| Input Power | Pin | 16.000 | W |
| Output Power | Pout | 100.0 | W |
| Operating Case Temp. | Tc | -40 to +85 | °C |
| Storage Temperature | Tstg | -55 to +100 | °C |

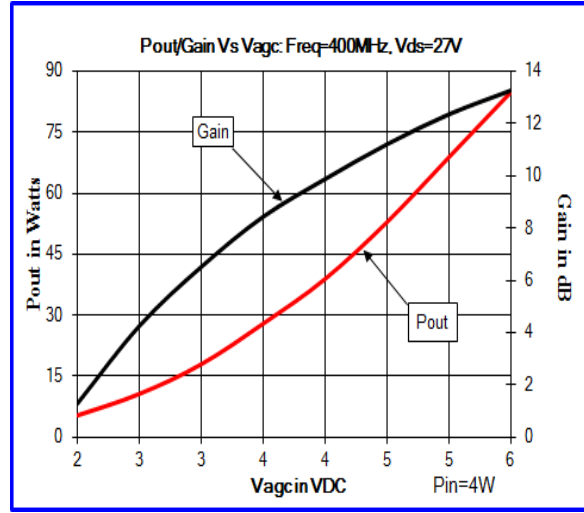
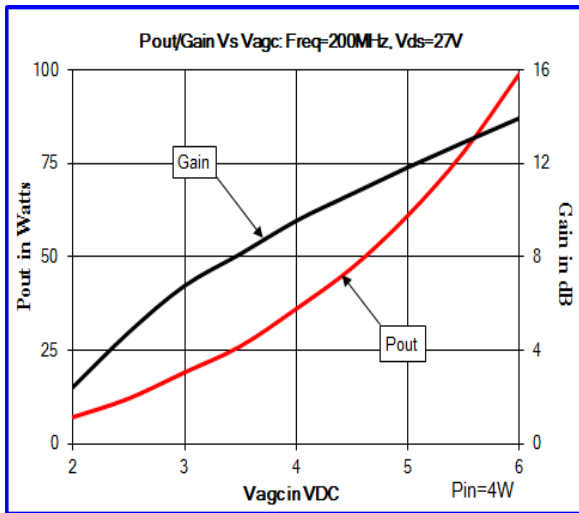
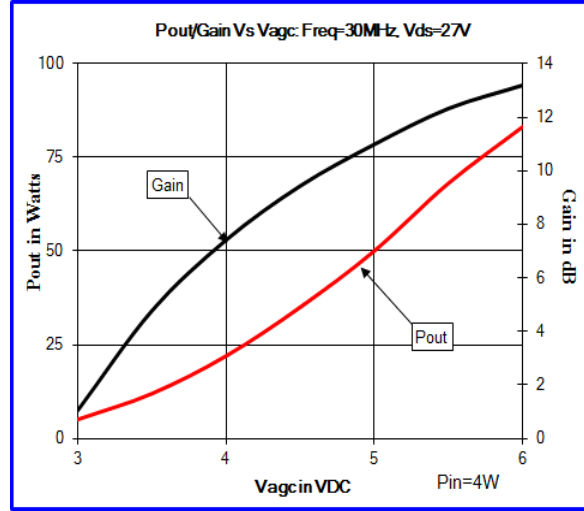
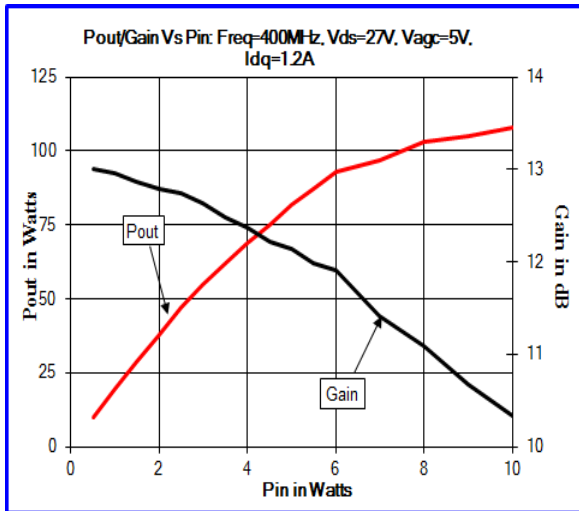
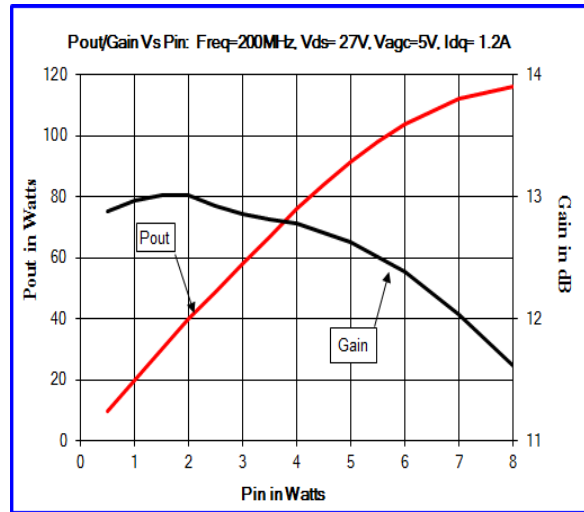
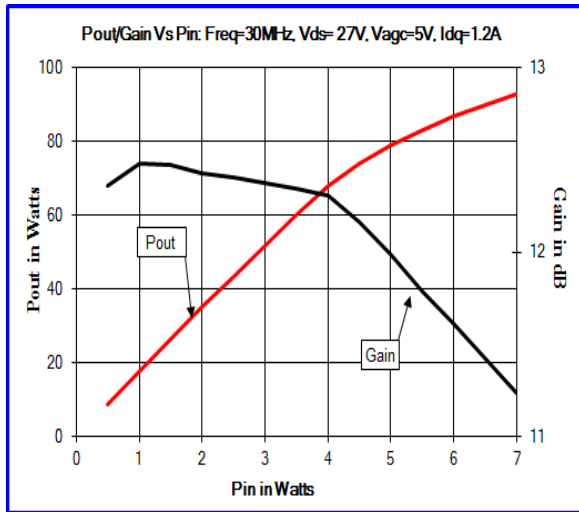
Pin 1=Ground Pin 4=Ground
 Pin 2=RF In Pin 5=Vdd
 Pin 3=VAGC Pin 6=RF out
 Pin 7=Ground



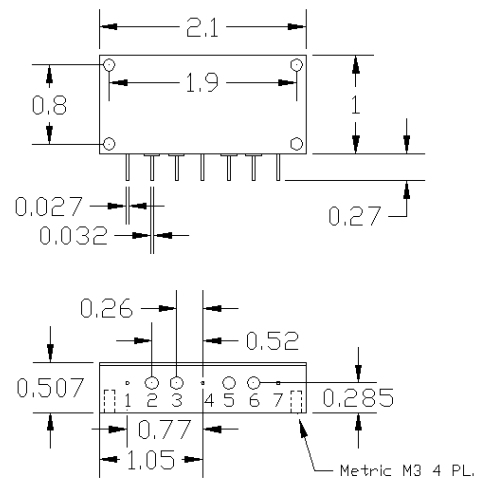
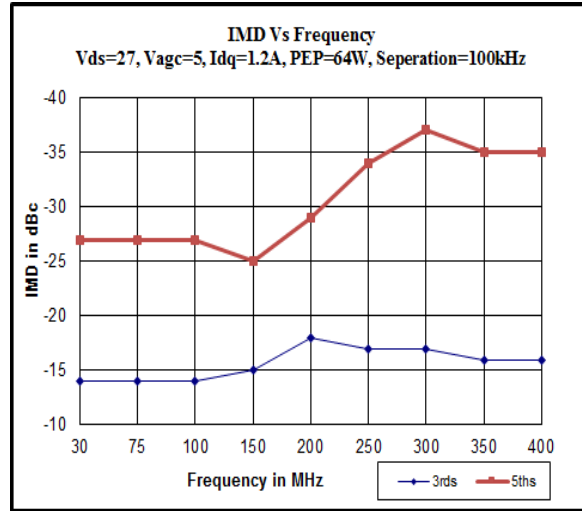
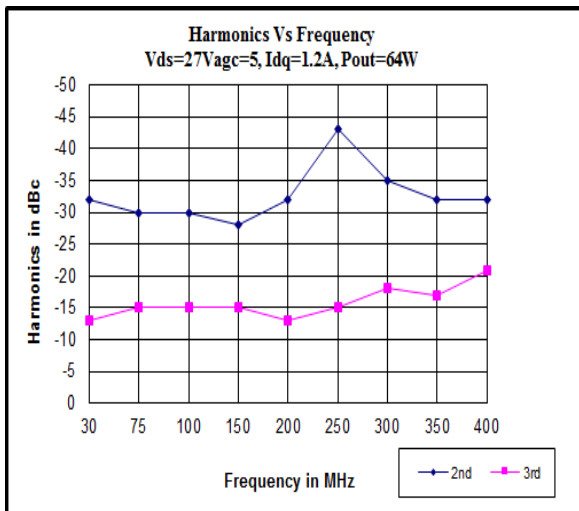
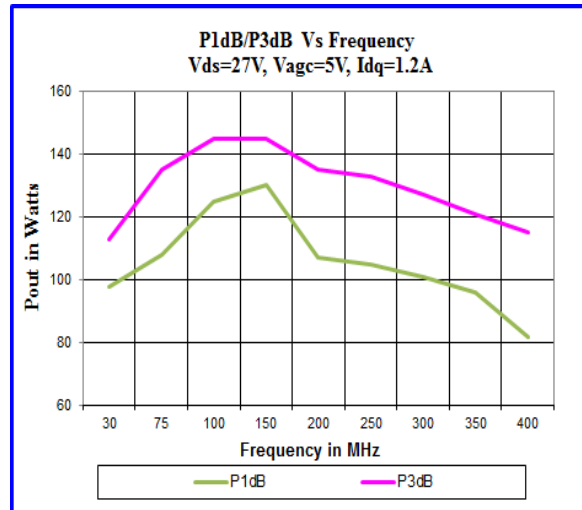
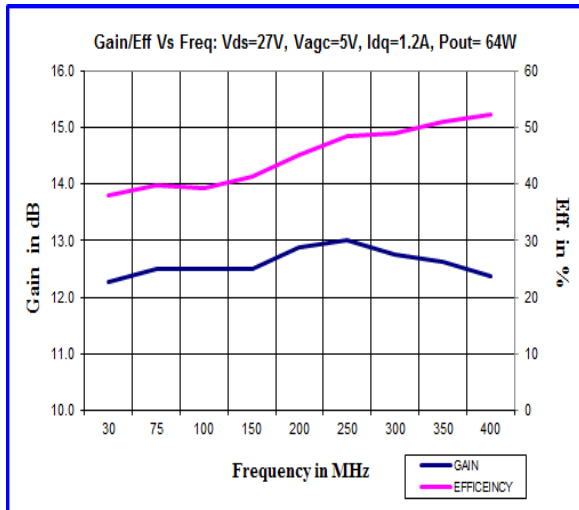
Electrical Characteristics: (T=25 °C Zs=Zl=50 ohms, Vdd = 27.0 Volts, Idq = 1.2 Amps)

| Parameter | Symbol | Min | Typical | Max | Unit | Test Conditions |
|-------------------------|--------|------|---------|------|----------|---------------------------------|
| Frequency Range | BW | 30.0 | | 400 | Mhz | 50 ohm load |
| Output Power | Po | 64.0 | | | Watts | Pin = 38.0 dbm Vagc = 5.00 V |
| Power Gain | PG | 10.0 | | | dB | Pout = 64.0 Watts Vagc = 5.00 V |
| Total Efficiency | η | | 40 | | % | Pout = 64.0 Watts |
| 2nd Harmonics | dso | | -30.00 | | dBc | Pout = 64.0 Watts @ Mhz |
| Intermod - 2 tone | Im3 | | -15.00 | | dBc | AvePwr= 32.0Watts |
| Load Mismatch Tolerance | VSWR | 10:1 | | | Relative | All Phase Angles Pout = 64.0 W |
| Vagc Voltage | VAGC | | | 5.00 | V | Pin = 38.0 dBm, Pout = 64.0 W |
| Pulse Response Time | Pr | | | 50.0 | uS | Pulse source: Vagc |

MBDP01



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POLYFET RF DEVICES

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