

**1 Watt/2 Watt L-Band Power Amplifier
1.435 - 1.525 GHz**

**AM42-0054
V1**

Absolute Maximum Ratings ^{2,3,4,5,6}

Parameter	Absolute Maximum
Input Power	+ 12 dBm
V _{DD}	+ 10 Volts
V _{GG}	-5 Volts
V _{DD} -V _{GG}	12 Volts
I _{ds}	1200 mA
Channel Temperature	+150°C
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

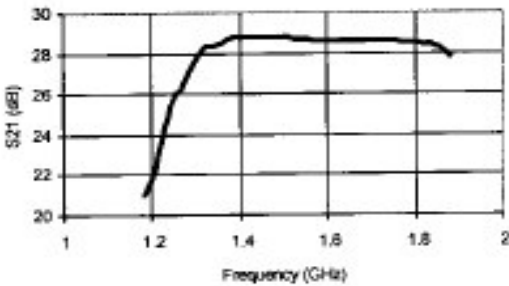
2. Operation of this device outside any of these limits may cause permanent damage.
3. Adequate heat sinking and grounding required on flange base.
4. Apply -3 volts to pins 5 and 6 (V_{GG}), prior to applying +8 volts to pins 1 pr 10 (V_{DD}). Adjust V_{GG} for typical drain current.
5. For optimum IP₃ performance, the V_{DD} bypass capacitors should be placed within 0.5 inches of the V_{DD} leads.
6. DC blocks are required for RF input and output ports.

Pin Configuration

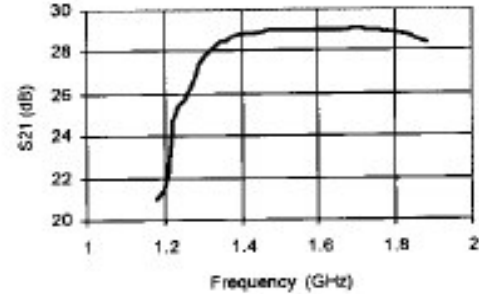
Pin No.	Pin Name	Description
1	VD1	Drain Supply to First Stage
2	GND	RF and DC Ground
3	RF IN	RF Input
4	GND	RF and DC Ground
5	VG1	Gate Supply to First Stage
6	VG2	Gate Supply to Second Stage
7	GND	RF and DC Ground
8	RF OUT	RF Output
9	GND	RF and DC Ground
10	VD2	Drain Supply to Second Stage

Typical Performance Curves

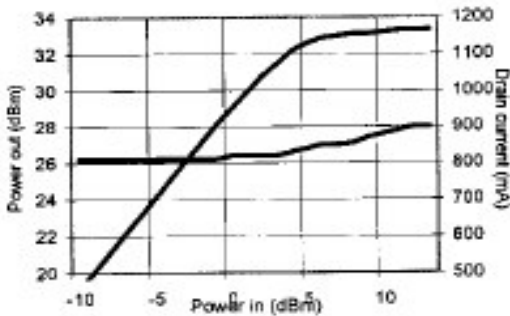
2 WATT PERFORMANCE
LINEAR GAIN VS FREQUENCY



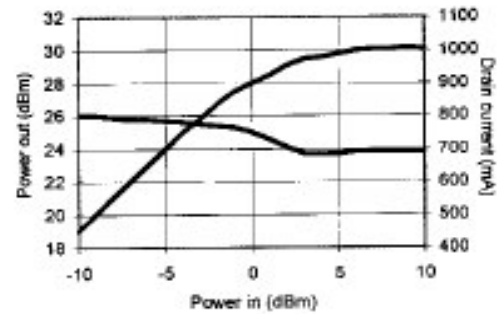
1 WATT PERFORMANCE
LINEAR GAIN VS FREQUENCY



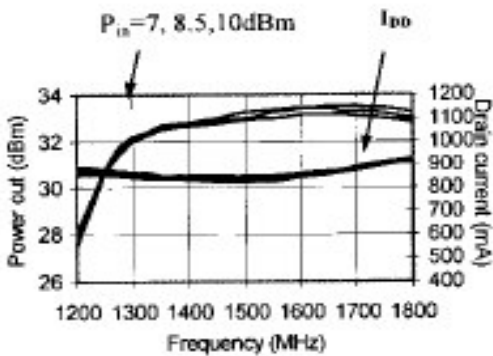
2 WATT PERFORMANCE
P_{OUT} AND CURRENT VS P_{IN}



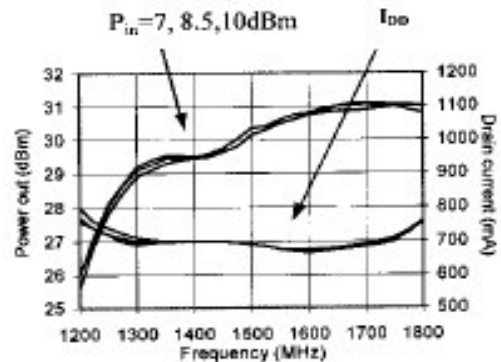
1 WATT PERFORMANCE
P_{OUT} AND CURRENT VS P_{IN}



2 WATT PERFORMANCE
GAIN AND CURRENT VS FREQ.



1 WATT PERFORMANCE
GAIN AND CURRENT VS FREQ.

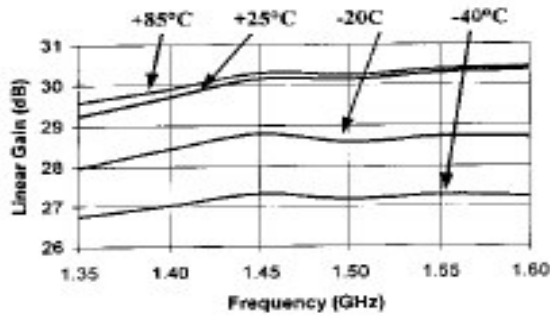


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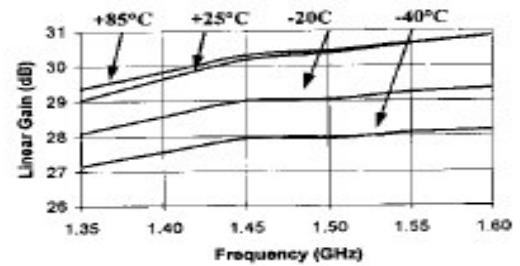
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V1**

Typical Performance Curves

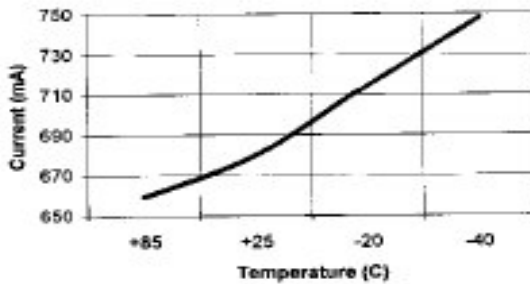
**2 WATT PERFORMANCE
LINEAR GAIN VS FREQ AND TEMP**



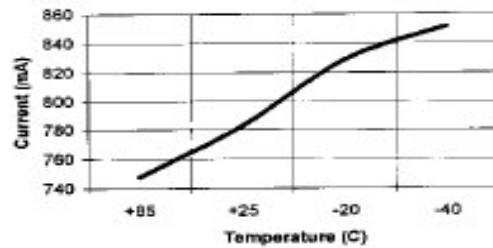
**1 WATT PERFORMANCE
LINEAR GAIN VS FREQUENCY**



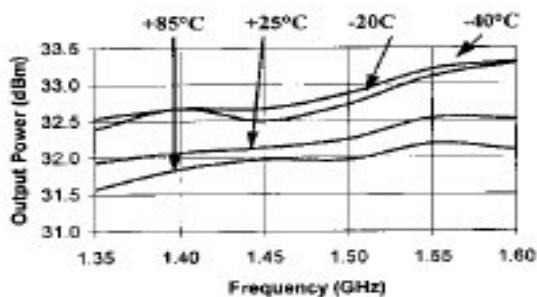
**2 WATT PERFORMANCE
CURRENT VS TEMP AT 1.5 GHz**



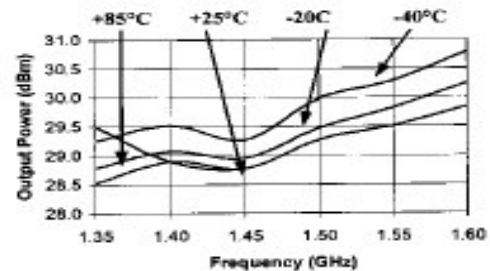
**1 WATT PERFORMANCE
CURRENT VS TEMP AT 1.5 GHz**



**2 WATT PERFORMANCE
P_{out} VS FREQ AND TEMP**



**1 WATT PERFORMANCE
P_{out} VS FREQ AND TEMP**



Ordering Information ⁷

Part Number	Package
AM42-0054	CR-15 Package

7. Die available upon request.