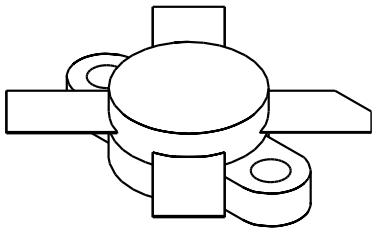


# VAM 80

80 Watts, 27 Volts, Class AB  
Defcom 100 - 150 MHz

<p><b>GENERAL DESCRIPTION</b> The VAM 80 is a COMMON EMITTER, specifically designed for collector modulated operation in the VHF AM applications in the 100-150 MHz range.</p> <p><b>ABSOLUTE MAXIMUM RATINGS</b> Maximum Power Dissipation @ 25°C                      85 Watts</p> <p><b>Maximum Voltage and Current</b> BVces    Collector to Emitter Voltage                      60 Volts BVebo    Emitter to Base Voltage                                    4.0 Volts Ic         Collector Current    8.5 A</p> <p><b>Maximum Temperatures</b> Storage Temperature    - 65 to +150°C Operating Junction Temperature                                +200°C</p>	<p><b>CASE OUTLINE</b> <b>55HT, Style 2</b></p> 
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## ELECTRICAL CHARACTERISTICS @ 25 °C

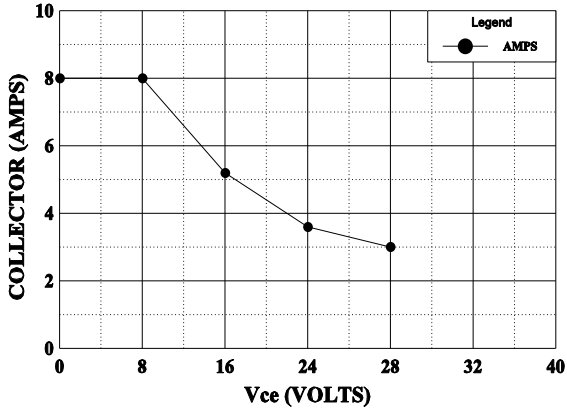
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Output	F = 150 MHz	80			Watts
<b>Pin</b>	Power Input	Vcc = 27V, 1 KHz, 50%		8	10	Watts
<b>Pg</b>	Power Gain		9.0	10		dB
<b>Pout</b>		F = 150 MHz	20			Watts
<b>Pin</b>		Vcc = 13.5 Volts		4.0	5.0	Watts
<b>Pg</b>			6.0	7.0		dB
<b>ηc</b>	Efficiency			65		%
<b>VSWR</b>	Load Mismatch Tolerance	Vcc = 13.5V, Po=20W			30:1	

<b>BVebo</b>	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 20 mA	60			Volts
<b>BVceo</b>	Collector to Emitter Breakdown	Ie = 50 mA	32			Volts
<b>Cob</b>	Output Capacitance	Vcb = 28 V, F = 1 MHz			75	pF
<b>hFE</b>	DC - Current Gain	Vce = 5 V, Ic = 1 mA	10			
<b>θjc</b>	Thermal Resistance				2.0	°C/W

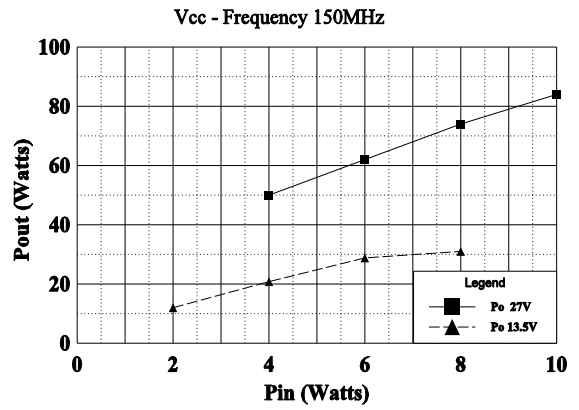
Issue August 1996

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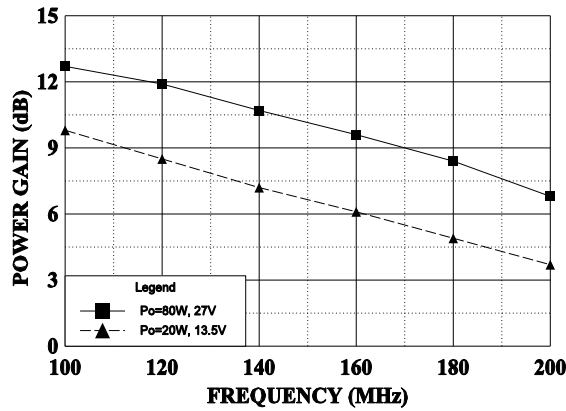
**DC SAFE OPERATING AREA**



**POWER OUTPUT vs POWER INPUT**

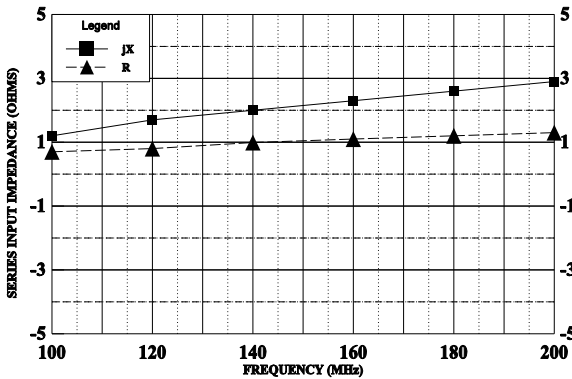


**POWER GAIN vs FREQUENCY**



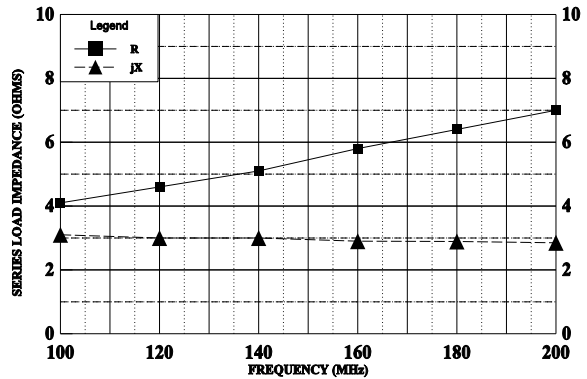
**SERIES INPUT IMPEDANCE vs FREQUENCY**

Vcc = 27V, Po=80W

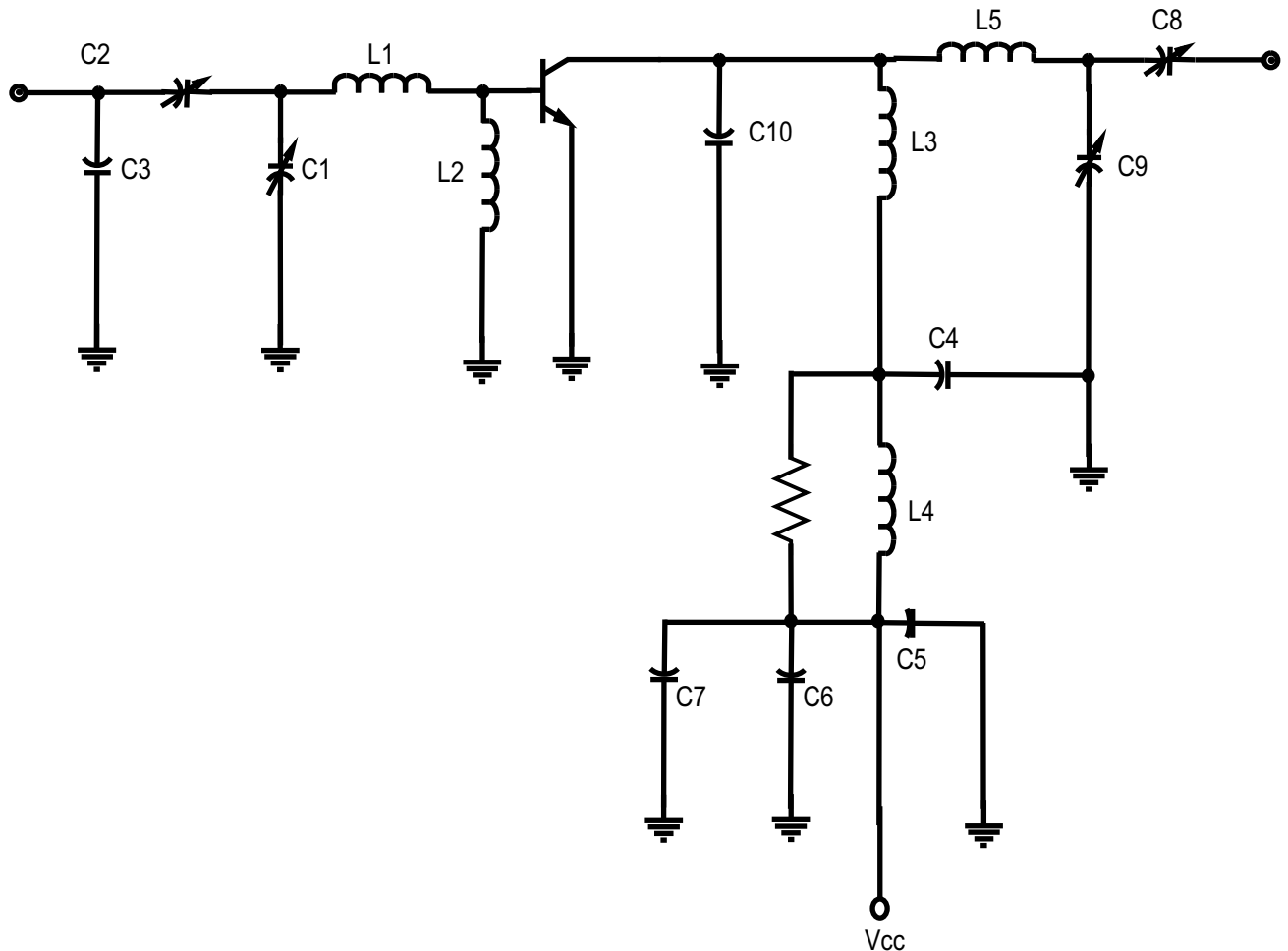


**SERIES LOAD IMPEDANCE vs FREQUENCY**

Po=80W Vcc=27V



## 150 MHz TEST AMPLIFIER



- C1, C2, C8, C9 ..... 4.40pF - compression Mica
- C3 ..... 10pF - uncased mica
- C4 ..... 250pF - uncased mica
- C5 ..... .01mf ceramic
- C6 ..... 1mf ceramic
- C7 ..... 1/0mf electrolytic
- C10 ..... 22pF - uncased mica
- L1 ..... 1/2" x 5/8" x .01" copper strap
- L2 ..... .68mh RFC
- L3 ..... 4 turns #16 3/16" I.D. -1/2" long
- L4 ..... 10mh RFC
- L5 ..... 1 1/2" x 3/16" x .01" copper strap