

VAM 80

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

GENERAL DESCRIPTION

The VAM 80 is a COMMON EMITTER, specifically designed for collector modulated operation in the VHF AM applications in the 100-150 MHz range.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 85 Watts

Maximum Voltage and Current

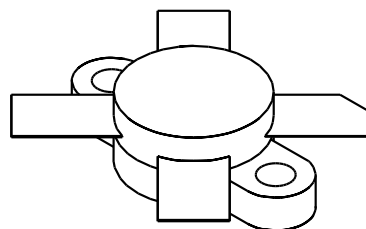
BVces Collector to Emitter Voltage 60 Volts
BVebo Emitter to Base Voltage 4.0 Volts
Ic Collector Current 8.5 A

Maximum Temperatures

Storage Temperature - 65 to +150°C
Operating Junction Temperature +200°C

CASE OUTLINE

55HT, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

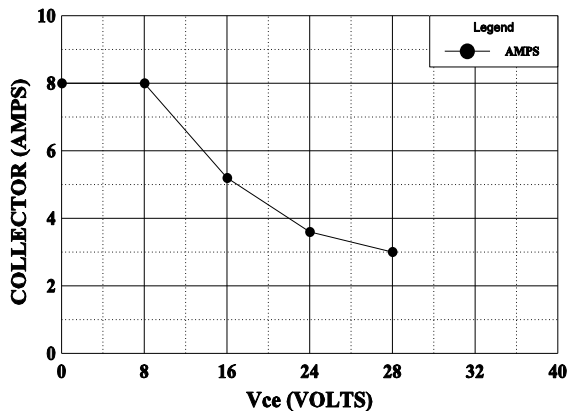
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 150 MHz	80			Watts
Pin	Power Input	Vcc = 27V, 1 KHz, 50%		8	10	Watts
Pg	Power Gain		9.0	10		dB
Pout		F = 150 MHz	20			Watts
Pin		Vcc = 13.5 Volts		4.0	5.0	Watts
Pg			6.0	7.0		dB
ηc	Efficiency			65		%
VSWR	Load Mismatch Tolerance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

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

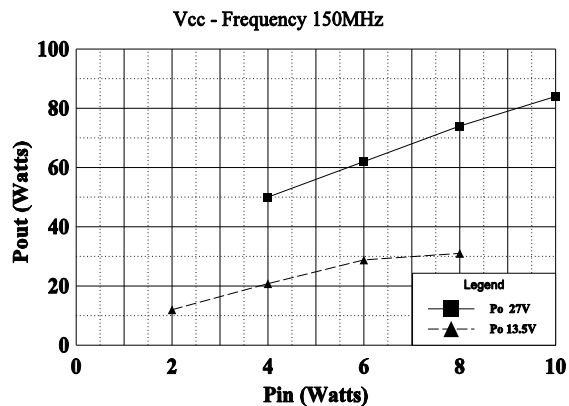
Issue August 1996

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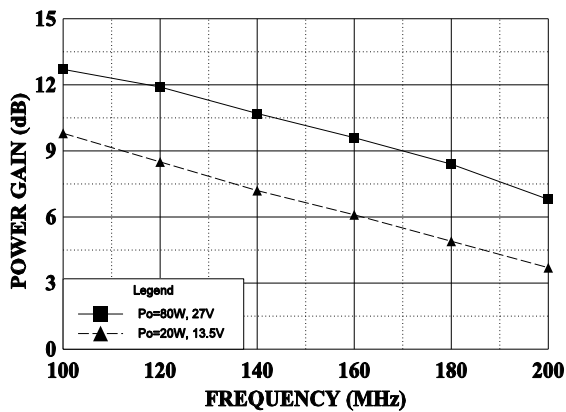
DC SAFE OPERATING AREA



POWER OUTPUT vs POWER INPUT

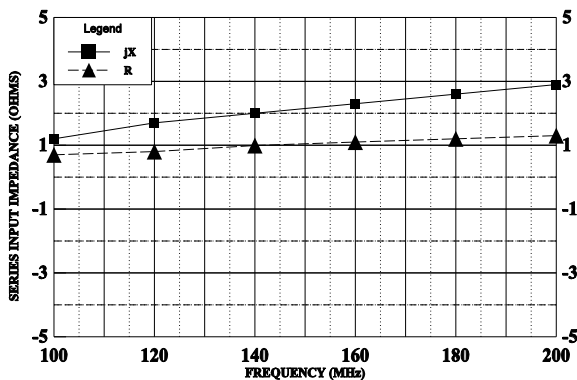


POWER GAIN VS FREQUENCY



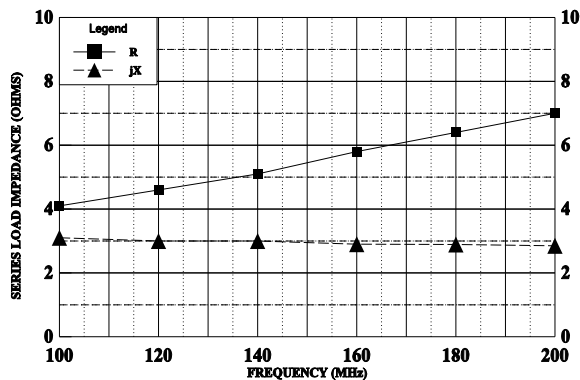
SERIES INPUT IMPEDANCE vs FREQUENCY

Vcc = 27V, Po=80W

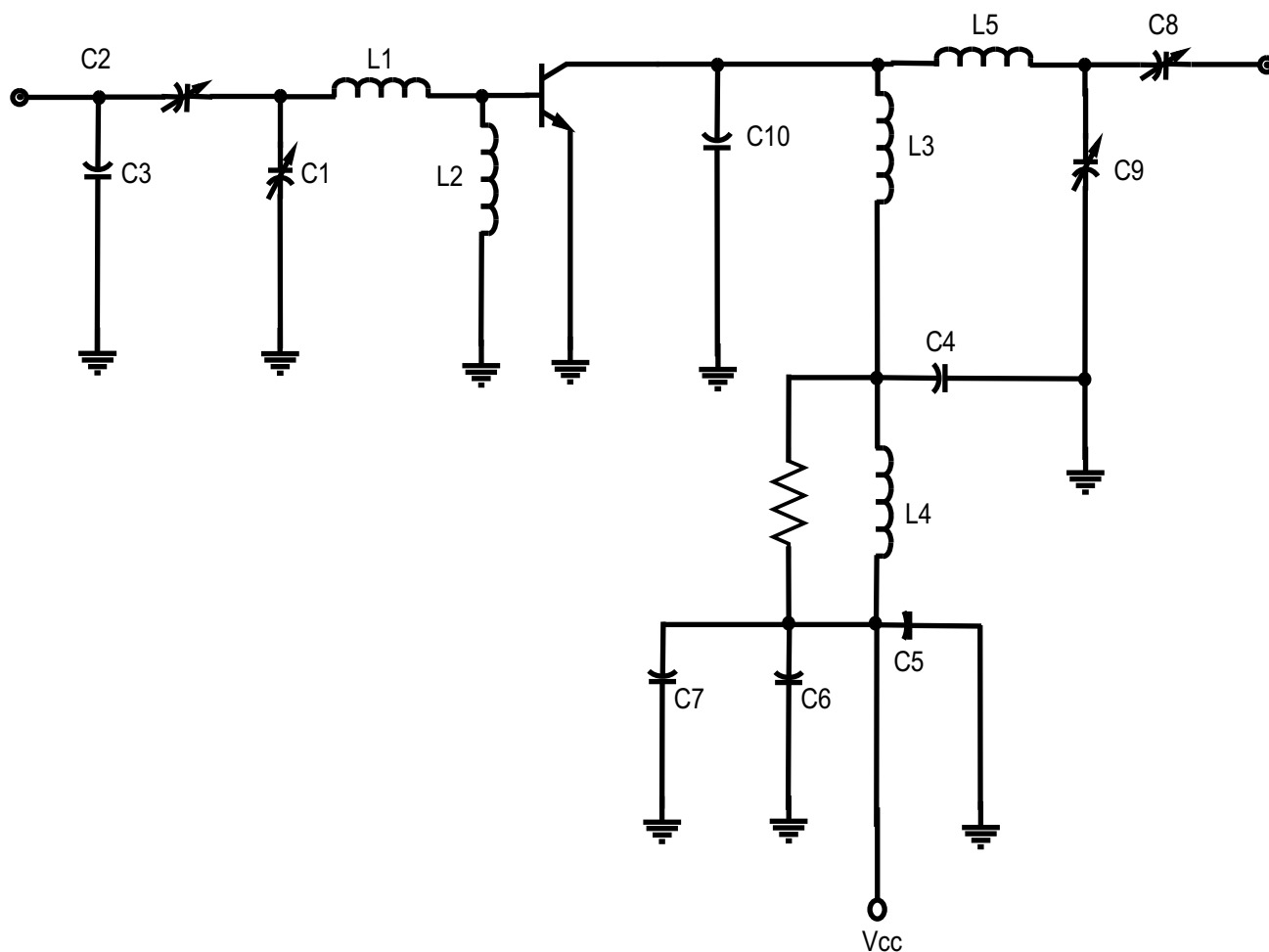


SERIES LOAD IMPEDANCE vs FREQUENCY

Po=80W Vcc=27V



150 MHz TEST AMPLIFIER



- C1, C2, C8, C9 4.40pF - compression Mica
 C3 10pF - uncased mica
 C4 250pF - uncased mica
 C501mf ceramic
 C6 1mf ceramic
 C7 1/0mf electrolytic
 C10 22pF - uncased mica
 L1 1/2" x 5/8" x .01" copper strap
 L268mh 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