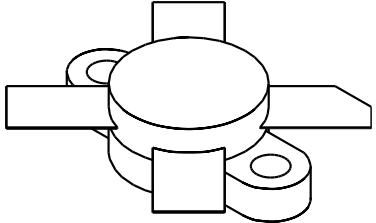


VAM 40

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

<p>GENERAL DESCRIPTION The VAM 40 is a COMMON EMITTER, specifically designed for collector modulated operation in the VHF AM applications in the 100-150 MHz range.</p>	<p>CASE OUTLINE 55HT, Style 2</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 50 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 60 Volts BVebo Emitter to Base Voltage 4.0 Volts Ic Collector Current 5.0 A</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to +150°C Operating Junction Temperature +200°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 150 MHz	40			Watts
Pin	Power Input	Vcc = 27V, 1 KHz, 50%		3.2	4.0	Watts
Pg	Power Gain		10	11		dB
Pout	Power Output	F = 150 MHz	10			Watts
Pin	Power Input	Vcc = 13.5 Volts			2.0	Watts
Pg	Power Gain			8.0		dB
ηc	Efficiency	F = 150 MHz, Po=10 W		65		%
VSWR	Load Mismatch Tolerance	Vcc = 13.5 Volts			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
Ices	Collector Leakage Current	Vce = 5 Volts			30	mA
Cob	Output Capacitance	Vcb = 28 V, F = 1 MHz			25	pF
hFE	DC - Current Gain	Vce = 5 V, Ic = 500 MA	10		100	
θjc	Thermal Resistance				3.5	°C/W

Issue August 1996

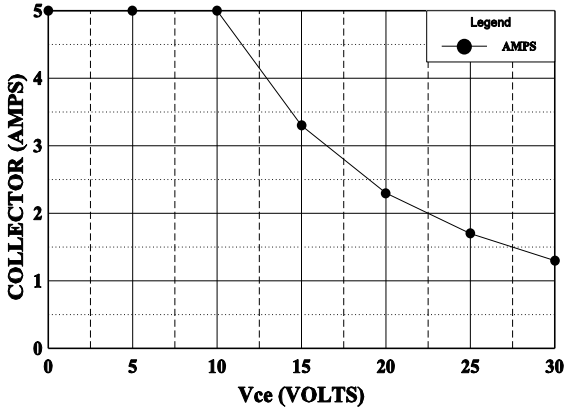
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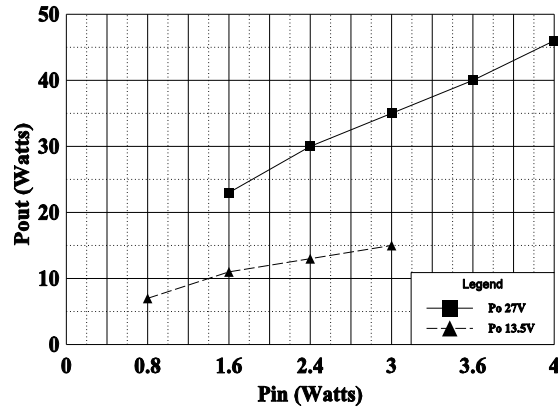
GHZ TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

VAM40

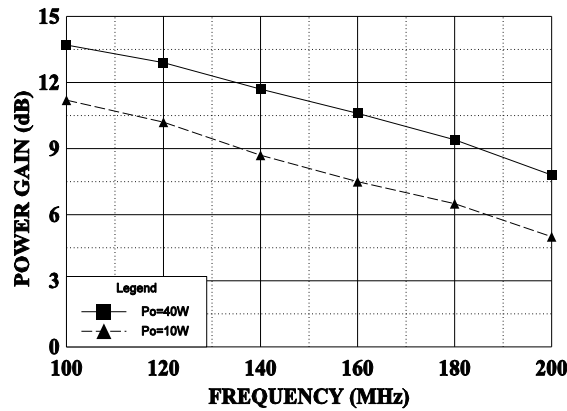
DC SAFE OPERATING AREA



POWER OUTPUT vs POWER INPUT

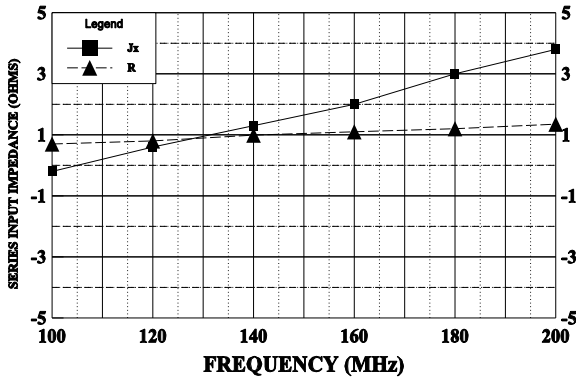


POWER GAIN VS FREQUENCY



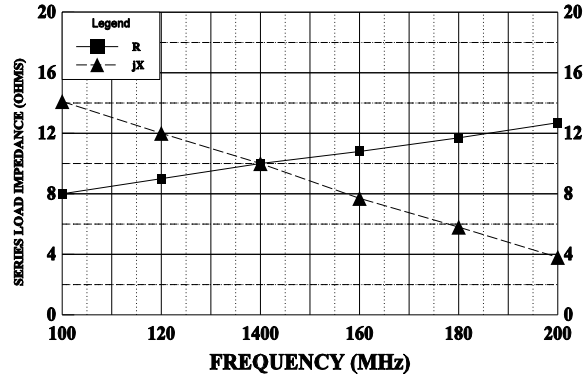
SERIES INPUT IMPEDANCE vs FREQUENCY

Vcc = 27V, Po=40W

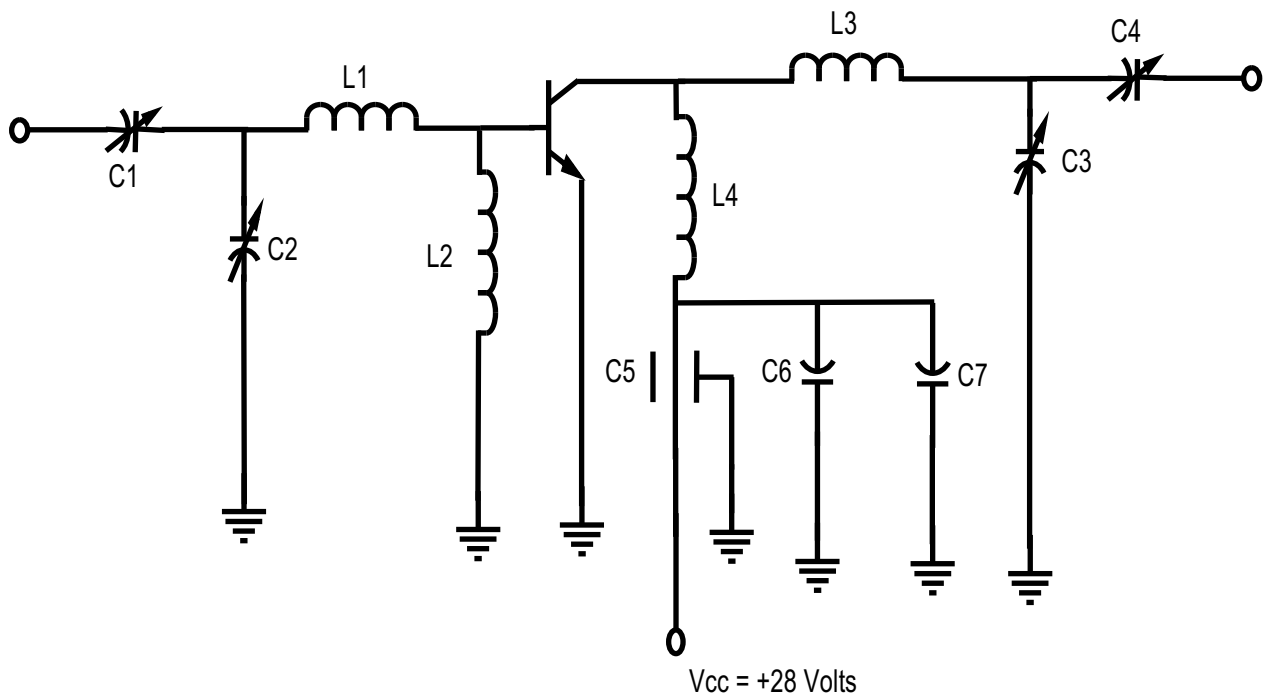


SERIES LOAD IMPEDANCE vs FREQUENCY

Po=40W Vcc=27V



150 MHz TEST AMPLIFIER



- C1, C2 4-40 pf Elmenco type 403
- C3, C4 2-25 pf Elmenco type 402
- C5001 f
- C61 f
- C7 10 f
- L1 1/2 turn #16, 3/8" I.D.
- L2 1/Outf RFC
- L3 3 turns #16, 3/8" I.D.
- L4 6 turns #16, 3/8" I.D.