

VAM 40

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

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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 50 Watts

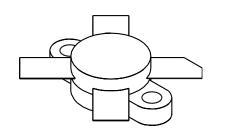
Maximum Voltage and Current

BVces Collector to Emiter Voltage 60 Volts
BVebo Emitter to Base Voltage 4.0 Volts
Ic Collector Current 5.0 A

Maximum Temperatures

Storage Temperature $-65 \text{ to } +150^{\circ}\text{C}$ Operating Junction Temperature $+200^{\circ}\text{C}$

CASE OUTLINE 55HT, Style 2



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 BVces	Emitter to Base Breakdown Collector to Emitter Breakdown	Ie = 5 mA Ic = 20 mA	4.0 60		Volts 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
$\mathbf{h}_{ extbf{FE}}$	DC - Current Gain	Vce = 5 V, Ic = 500 MA	10	100	_
θјс	Thermal Resistance			3.5	°C/W

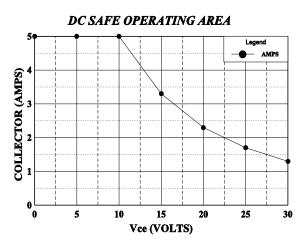
Issue August 1996

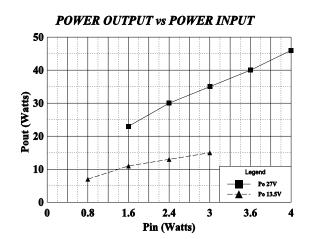
GHz TECHNOLOGY INC. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE. GHZ RECOMMENDS THAT BEFORE THE PRODUCT(S) DESCRIBED HEREIN ARE WRITTEN INTO SPECIFICATIONS, OR USED IN CRITICAL APPLICATIONS, THAT THE PERFORMANCE CHARACTERISTICS BE VERIFIED BY CONTACTING THE FACTORY.

GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

VAM40

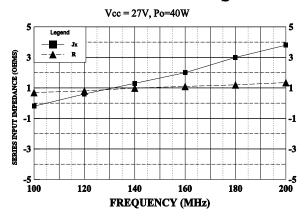




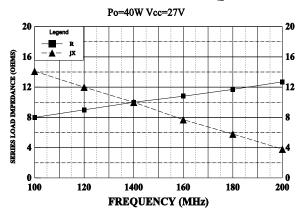


POWER GAIN VS FREQUENCY 15 12 12 13 140 160 180 200 FREQUENCY (MHz)

SERIES INPUT IMPEDANCE vs FREQUENCY



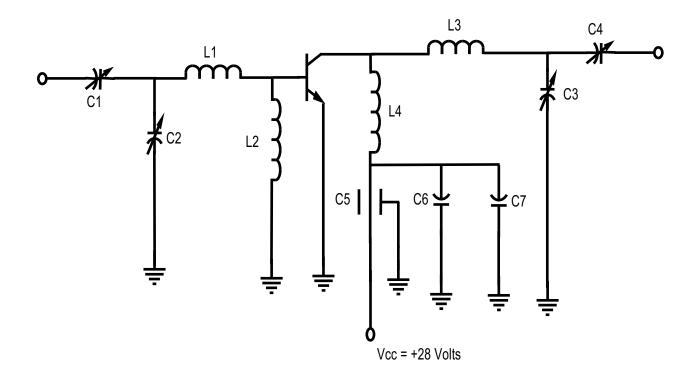
SERIES LOAD IMPEDANCE vs FREQUENCY





VAM40

150 MHz TEST AMPLIFIER



C1, C2	4-40 pf Elmenco type 403
C3, C4	2-25 pf Elmenco type 402
C5	.001 f
C6	.1 f
C7	. 10 f
	. 1/2 turn #16, 3/8" I.D.
L2	. 1/Ouf RFC
L3	. 3 turns #16, 3/8" I.D.
L4	. 6 turns #16, 3/8" I.D.