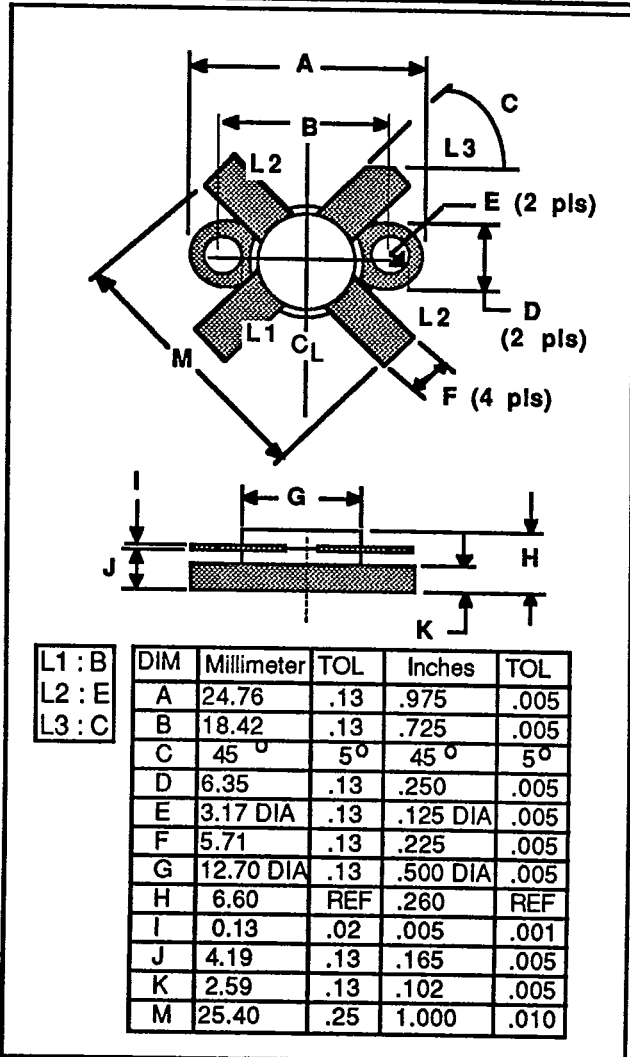


GENERAL DESCRIPTION

This device is specifically designed for collector modulated operation in the VHF AM applications in the 100-150 MHz range.

VAM 40
40 WATTS PEAK - 27 VOLTS
100-150 MHz

VHF COMMUNICATIONS



DIM	Millimeter	TOL	Inches	TOL	
L1 : B	A	24.76	.13	.975	.005
L2 : E	B	18.42	.13	.725	.005
L3 : C	C	45°	5°	45°	5°
	D	6.35	.13	.250	.005
	E	3.17 DIA	.13	.125 DIA	.005
	F	5.71	.13	.225	.005
	G	12.70 DIA	.13	.500 DIA	.005
	H	6.60	REF	.260	REF
	I	0.13	.02	.005	.001
	J	4.19	.13	.165	.005
	K	2.59	.13	.102	.005
	M	25.40	.25	1.000	.010

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature **50 W**

Maximum Voltage and Current

BVces Collector to Emitter Voltage **60 V**

BVebo Emitter to Base Voltage **4.0 V**

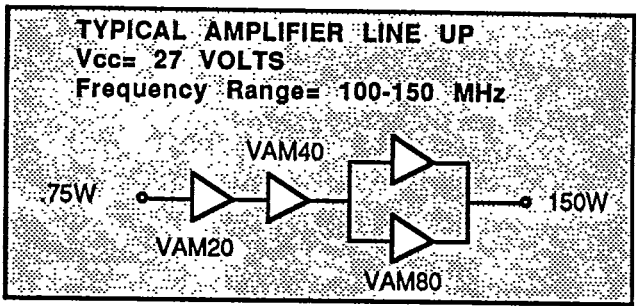
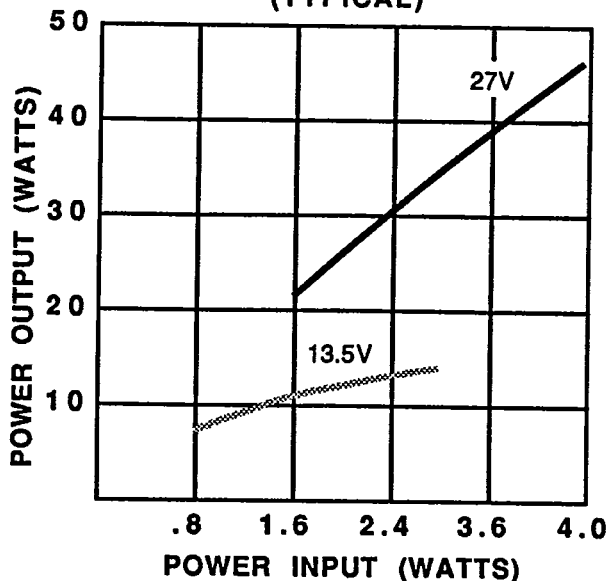
Ic Collector Current **5.0 A**

Maximum Temperatures

Storage Temperature **-65 to +150 °C**

Operating Junction Temperature **+200 °C**

POWER OUTPUT VS POWER INPUT (TYPICAL)



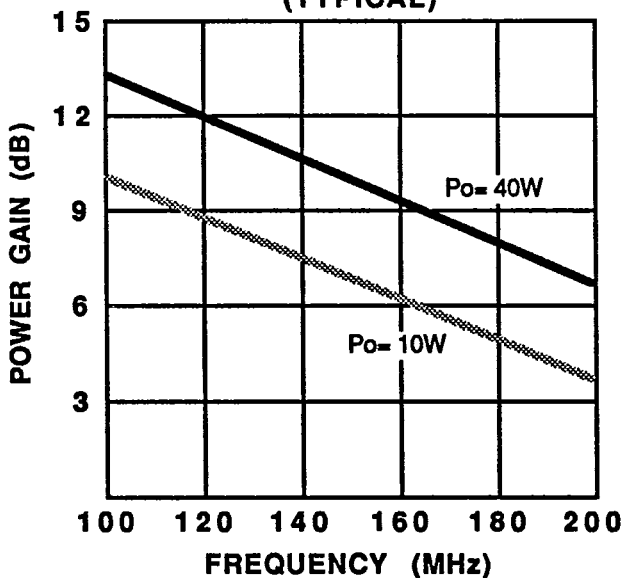
VAM 40-2

ELECTRICAL CHARACTERISTICS¹

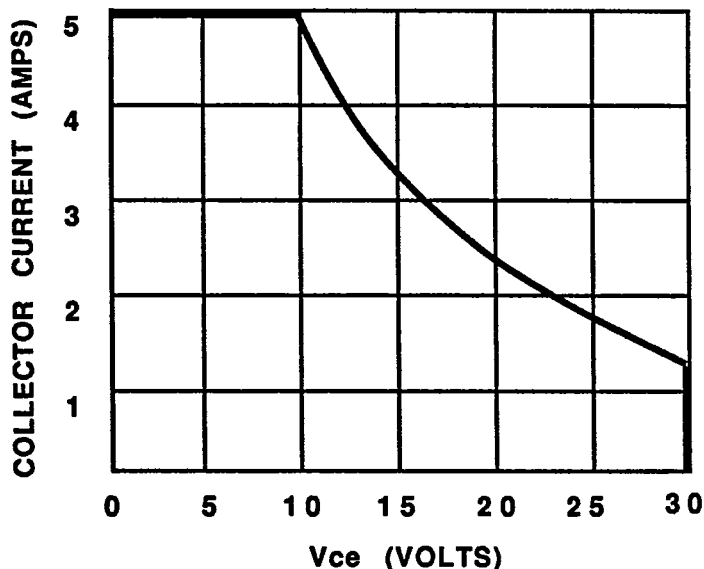
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 150 MHz V _{cc} = 27 V, 1 KHz, 50%	40		4.0	Watts
P _{in}	Power Input					
P _g	Power Gain					
P _{out}	Power Output	f = 150 MHz V _{cc} = 13.5 V	10		2.0	Watts
P _{in}	Power Input					
P _g	Power Gain					
η _c	Collector Efficiency	f = 150 MHz, P _o = 10W		65		%
VSWR	Load Mismatch Tolerance	V _{cc} = 13.5V			∞:1	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 20mA	60			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 50mA	32			Volts
I _{ces}	Collector Leakage Current	I _e = 0A, V _{ce} = 5V			30	mA
C _{ob}	Capacitance-Collector to Base	V _{cb} = 28V, f = 1MHz			25	pF
h _{FE}	DC-Current Gain	V _{ce} = 5V, I _c = 500mA	10		100	
θ _{jc}	Thermal Resistance				3.5	°C/W

Note 1: T_c = +25°C unless otherwise specified

POWER GAIN VS FREQUENCY (TYPICAL)



DC SAFE OPERATING AREA (TYPICAL)

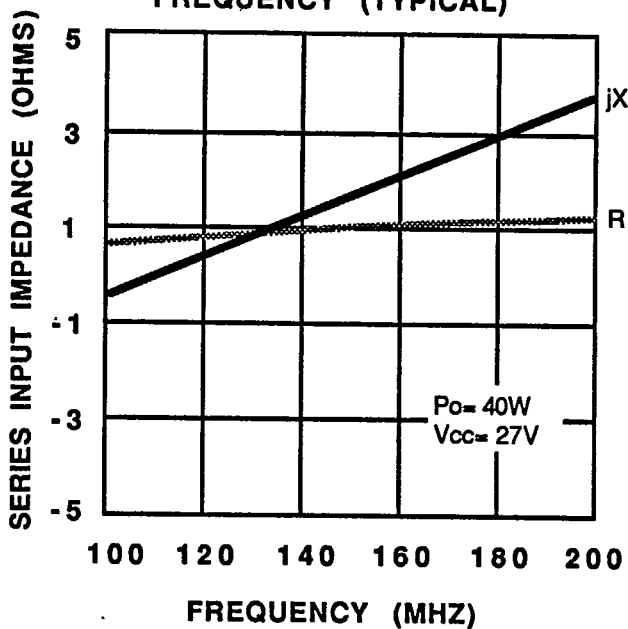


SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

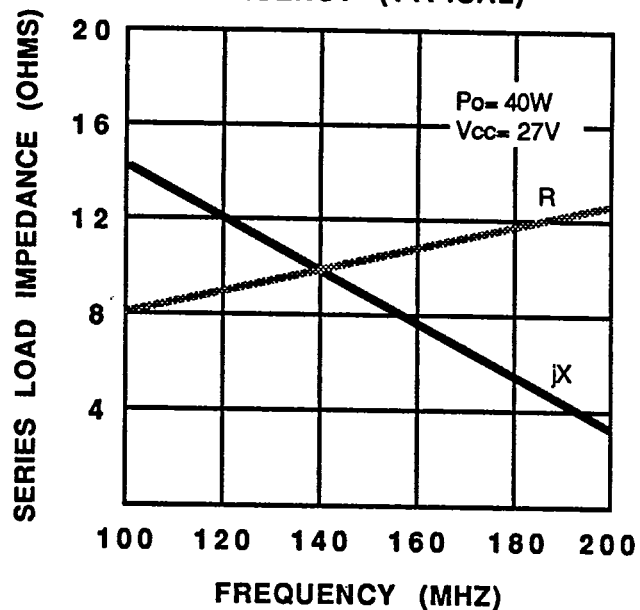
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VAM40-3

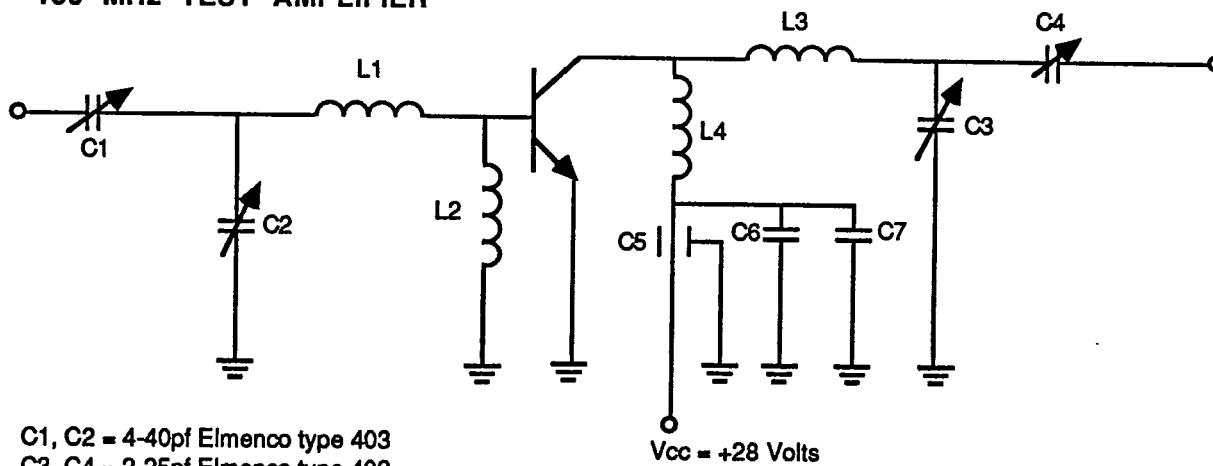
SERIES INPUT IMPEDANCE VS FREQUENCY (TYPICAL)



SERIES LOAD IMPEDANCE VS FREQUENCY (TYPICAL)



150 MHz TEST AMPLIFIER



- C1, C2 = 4-40pf Elmenco type 403
- C3, C4 = 2-25pf Elmenco type 402
- C5 = .001uf
- C6 = .1uf
- C7 = 10uf
- L1 = 1/2 turn #16, 3/8" I.D.
- L2 = 1/0uf RFC
- L3 = 3 turns #16, 3/8" I.D.
- L4 = 6 turns #16, 3/8" I.D.

SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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