

GENERAL DESCRIPTION

The VAM 120 is designed to operate in a collector modulated VHF power amplifier. It is a common emitter device, optimized for use in the 100-150 MHz range.

VAM-120
120 WATTS-27 VOLTS
100 - 150 MHz

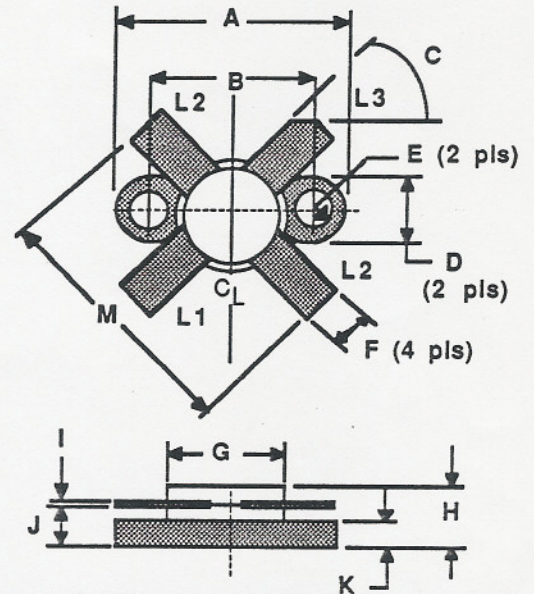
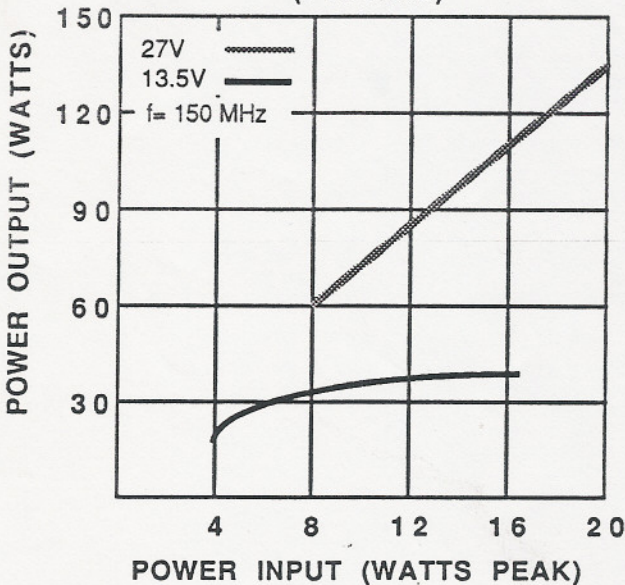
VHF COMMUNICATIONS

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25 C Case Temperature	140 W
Maximum Voltage and Current	
BVces Collector to Emitter Voltage	60 V
BVebo Emitter to Base Voltage	4.0 V
Ic Collector Current	12 A

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

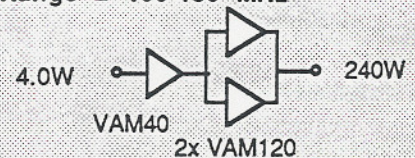
POWER OUTPUT VS POWER INPUT (TYPICAL)



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	6.80	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

TYPICAL AMPLIFIER LINE UP

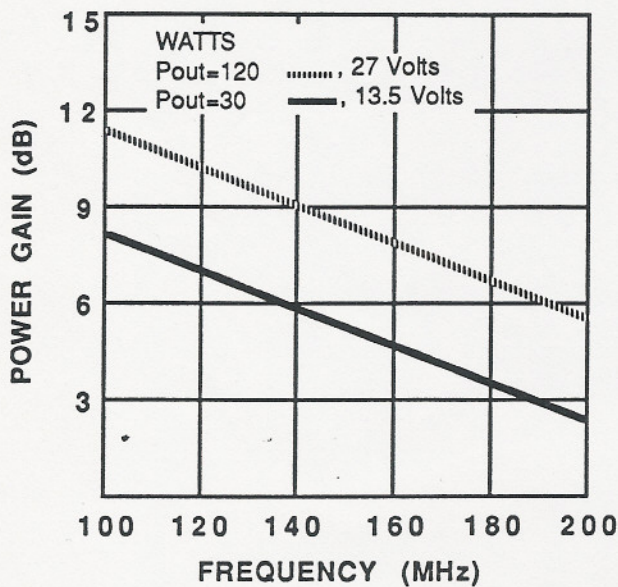
Vcc = 28 Volts
 Frequency Range = 100-150 MHz



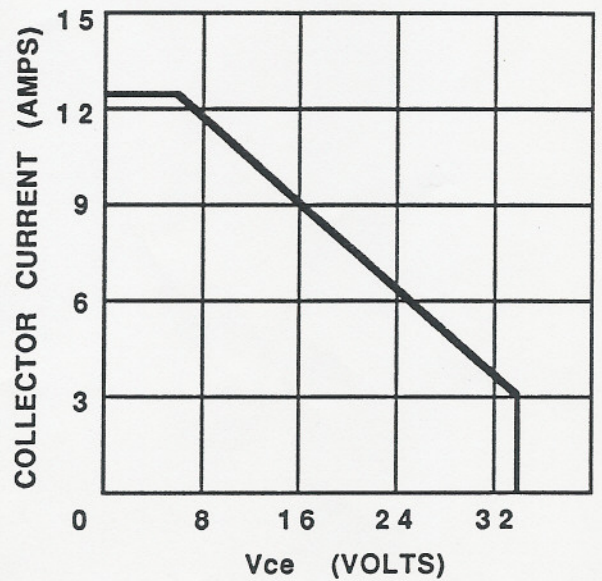
ELECTRICAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f= 150MHz V _c =27V	120			Watts
P _{in}	Power Input				20	Watts
P _g	Power Gain			9.0		dB
P _{out}	Power Output	f= 150MHz V _c =13.5V	30			Watts
P _{in}	Power Input				10	Watts
P _g	Power Gain			6.0		dB
V _{Vebo}	Voltage - Emitter to Base	I _e =5mA	4.0			Volts
V _{Vces}	Voltage - Collector to Emitter	I _c =20mA	60			Volts
V _{Vceo}	Voltage - Collector to Emitter	I _c =50mA	32			Volts
VSWR	Load Mismatch Tolerance				∞:1	
η _c	Collector Efficiency	At Rated Power Out		65		%
C _{ob}	Capacitance-Collector to Base			240		pF
h _{FE}	DC-Current Gain	V _{ce} =5V, I _c =1A	10			
θ _{jc}	Thermal Resistance				1.2	°C/W

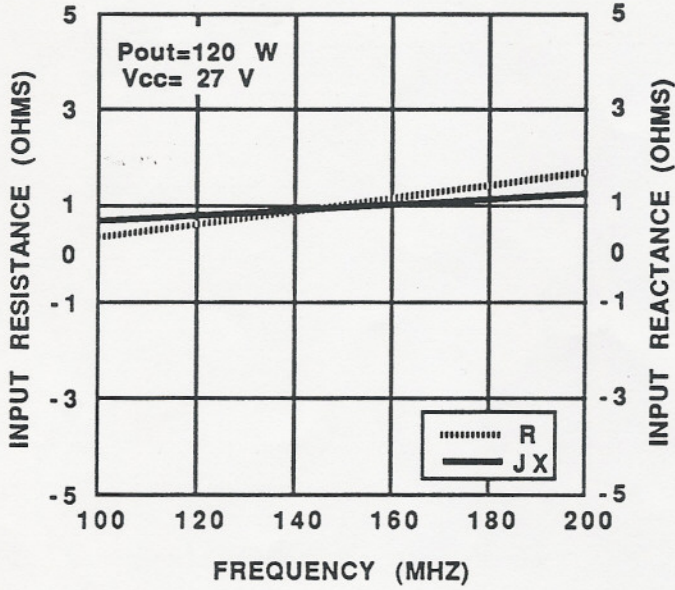
POWER OUTPUT VS FREQUENCY (TYPICAL)



DC SAFE OPERATING AREA (TYPICAL)



SERIES INPUT IMPEDANCE VS FREQUENCY
(TYPICAL)



SERIES LOAD IMPEDANCE VS FREQUENCY
(TYPICAL)

