

# **VAM 120**

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

### GENERAL DESCRIPTION

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

### ABSOLUTE MAXIMUM RATINGS

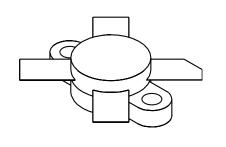
Maximum Power Dissipation @ 25°C 140 Watts

**Maximum Voltage and Current** 

BVces Collector to Emiter Voltage 60 Volts
BVebo Emitter to Base Voltage 4.0 Volts
Ic Collector Current 12 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	120			Watts
Pin	Power Input	Vcc = 27  Volts		15	20	Watts
Pg	Power Gain		7.8	9.0		dB
Pout		F = 150  MHz	30			Watts
Pin		Vcc = 13.5  Volts		7.5	10	Watts
Pg			4.8	6.0		dB
ης	Efficiency			65		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo BVces BVceo Cob h <sub>FE</sub>	Emitter to Base Breakdown Collector to Emitter Breakdown Collector to Emitter Breakdown Output Capacitance DC - Current Gain	Ie = 5 mA Ic = 20 mA Ie = 50 mA Vce = 5 V, Ic = 1 A	4.0 60 32	240		Volts Volts Volts pF
θjc	Thermal Resistance		- 0		1.2	°C/W

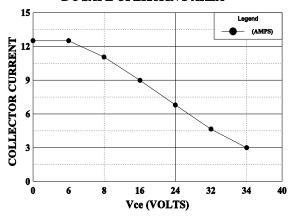
Issue August 1996

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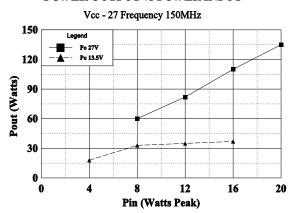
## **VAM -120**



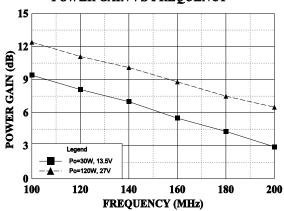
DC SAFE OPERATING AREA



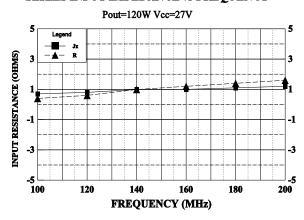
#### **POWER OUTPUT vs POWER INPUT**



**POWER GAIN VS FREQUENCY** 



### SERIES INPUT IMPEDANCE vs FREQUENCY



#### SERIES LOAD IMPEDANCE vs FREQUENCY

