GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

VAM 120

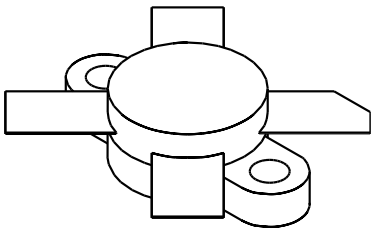
120 Watts, 27 Volts, Class AB
Defcom 100 - 150 MHz

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.

CASE OUTLINE

55HT, Style 2



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25ºC	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 to +150ºC
Operating Junction Temperature	+200ºC

ELECTRICAL CHARACTERISTICS @ 25 ^{O}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
η**c**	Efficiency			65		%
VSWR	Load Mismatch Tolerance				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
Cob	Output Capacitance			240		pF
$\mathbf{h_{FE}}$	DC - Current Gain	Vce = 5 V, Ic = 1 A	10			
θ**jc**	Thermal Resistance				1.2	ºC/W

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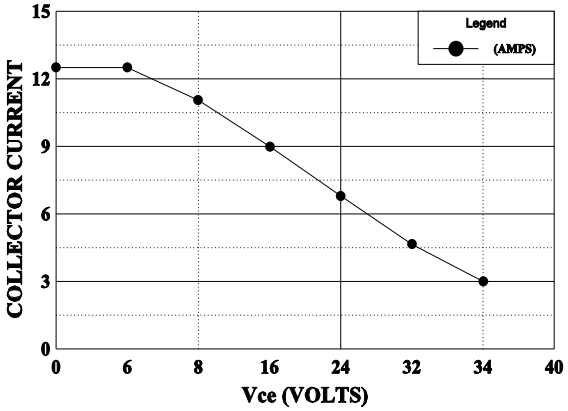
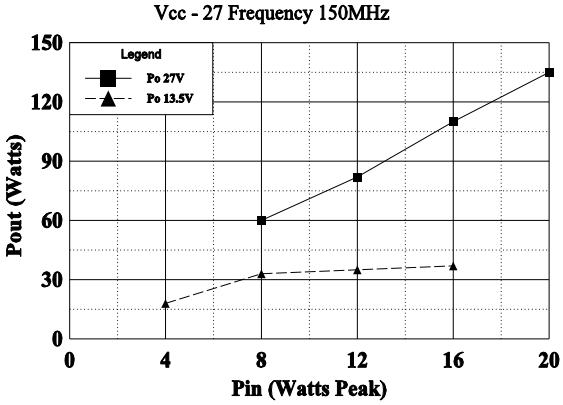
VAM -120

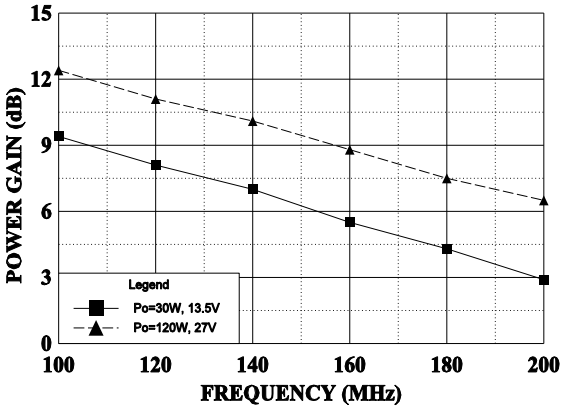
DC SAFE OPERATING AREA



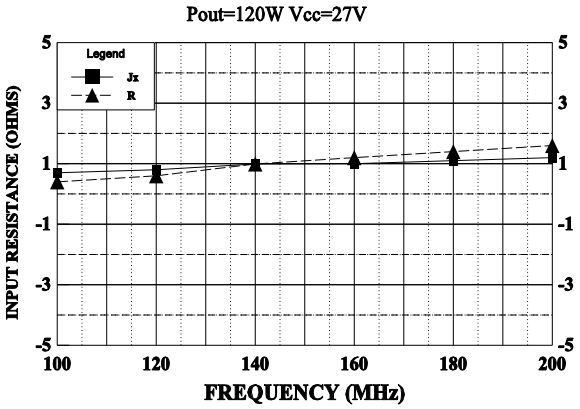
POWER OUTPUT vs POWER INPUT



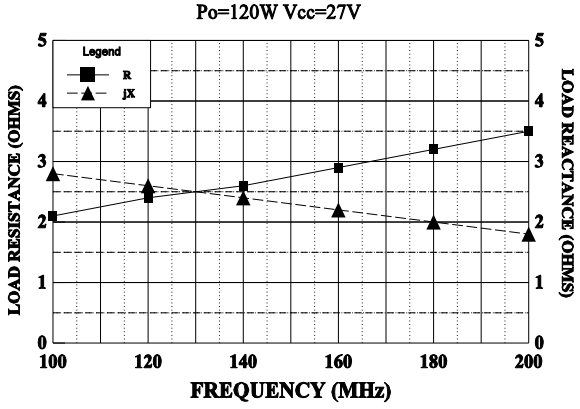
POWER GAIN VS FREQUENCY



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY



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