

VAM 120

120 Watts, 27 Volts, Class AB

Defcom 100 - 150 MHz

GENERAL DESCRIPTION

The VAM 120 is a COMMON EMITTER device 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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 140 Watts

Maximum Voltage and Current

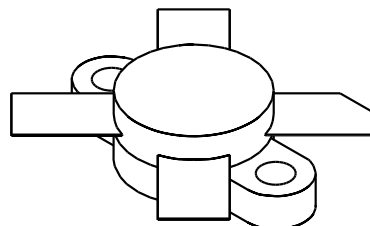
BVces Collector to Emitter Voltage 60 Volts
BVebo Emitter to Base Voltage 4.0 Volts
Ic Collector Current 12 A

Maximum Temperatures

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

CASE OUTLINE

55HT, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 150 MHz	120			Watts
P_{in}	Power Input	V _{cc} = 27 Volts		15	20	Watts
P_g	Power Gain		7.8	9.0		dB
P_{out}		F = 150 MHz	30			Watts
P_{in}		V _{cc} = 13.5 Volts		7.5	10	Watts
P_g			4.8	6.0		dB
η_c	Efficiency			65		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	I _e = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	I _c = 20 mA	60			Volts
BVceo	Collector to Emitter Breakdown	I _e = 50 mA	32			Volts
C_{ob}	Output Capacitance			240		pF
h_{FE}	DC - Current Gain	V _{ce} = 5 V, I _c = 1 A	10			
θ_{jc}	Thermal Resistance				1.2	°C/W

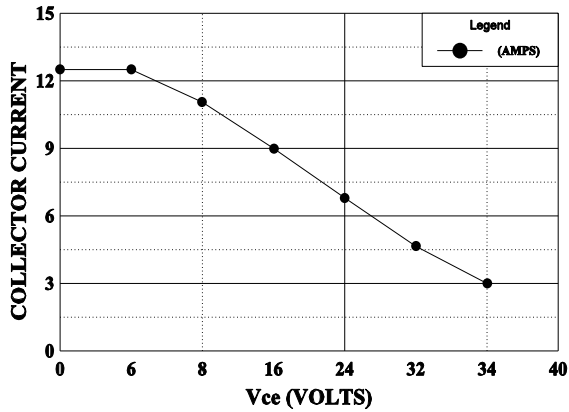
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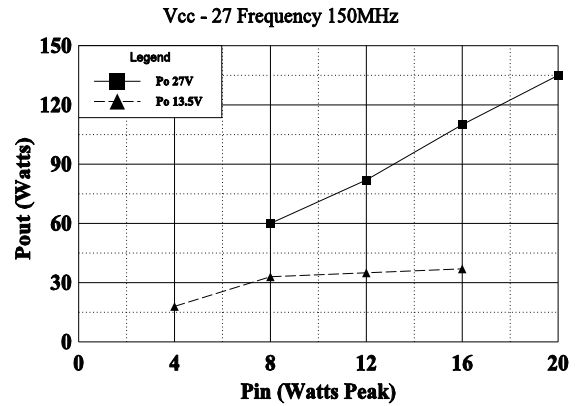
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VAM -120

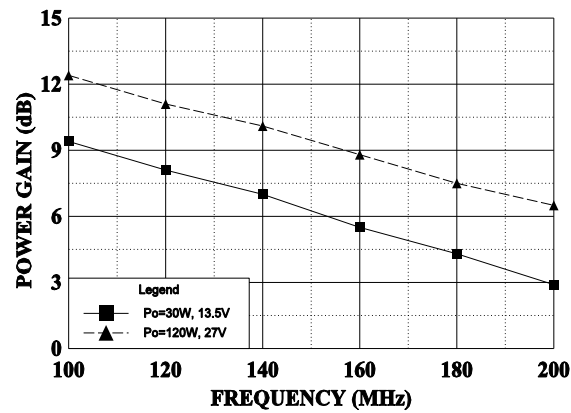
DC SAFE OPERATING AREA



POWER OUTPUT vs POWER INPUT

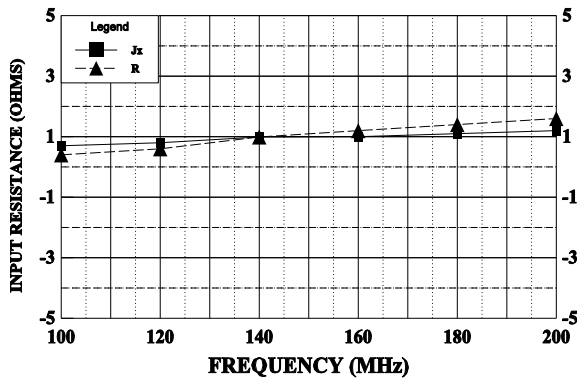


POWER GAIN VS FREQUENCY



SERIES INPUT IMPEDANCE vs FREQUENCY

Pout=120W Vcc=27V



SERIES LOAD IMPEDANCE vs FREQUENCY

Po=120W Vcc=27V

