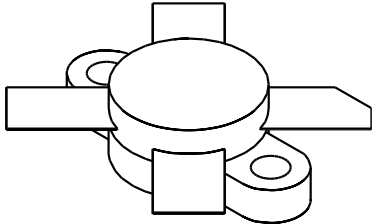


# VAM 120

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

<p><b>GENERAL DESCRIPTION</b> 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.</p>	<p><b>CASE OUTLINE</b> <b>55HT, Style 2</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C                      140 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces Collector to Emitter Voltage                      60 Volts BVebo Emitter to Base Voltage                              4.0 Volts Ic Collector Current    12 A</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature    - 65 to +150°C Operating Junction Temperature                              +200°C</p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

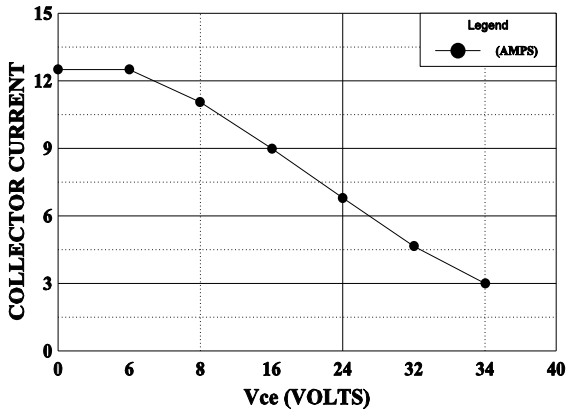
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>P<sub>out</sub></b>	Power Output	F = 150 MHz	120			Watts
<b>P<sub>in</sub></b>	Power Input	V <sub>cc</sub> = 27 Volts		15	20	Watts
<b>P<sub>g</sub></b>	Power Gain		7.8	9.0		dB
<b>P<sub>out</sub></b>		F = 150 MHz	30			Watts
<b>P<sub>in</sub></b>		V <sub>cc</sub> = 13.5 Volts		7.5	10	Watts
<b>P<sub>g</sub></b>			4.8	6.0		dB
<b>η<sub>c</sub></b>	Efficiency			65		%
<b>VSWR</b>	Load Mismatch Tolerance				30:1	

<b>BVebo</b>	Emitter to Base Breakdown	I <sub>e</sub> = 5 mA	4.0			Volts
<b>BVces</b>	Collector to Emitter Breakdown	I <sub>c</sub> = 20 mA	60			Volts
<b>BVceo</b>	Collector to Emitter Breakdown	I <sub>e</sub> = 50 mA	32			Volts
<b>C<sub>ob</sub></b>	Output Capacitance			240		pF
<b>h<sub>FE</sub></b>	DC - Current Gain	V <sub>ce</sub> = 5 V, I <sub>c</sub> = 1 A	10			
<b>θ<sub>jc</sub></b>	Thermal Resistance				1.2	°C/W

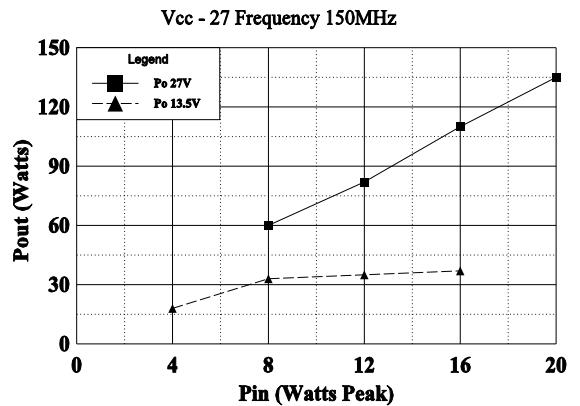
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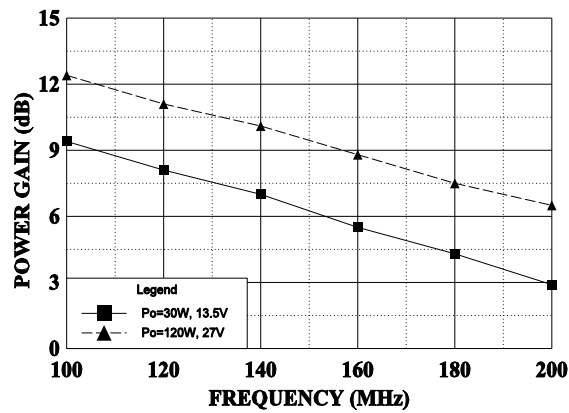
**DC SAFE OPERATING AREA**



**POWER OUTPUT vs POWER INPUT**

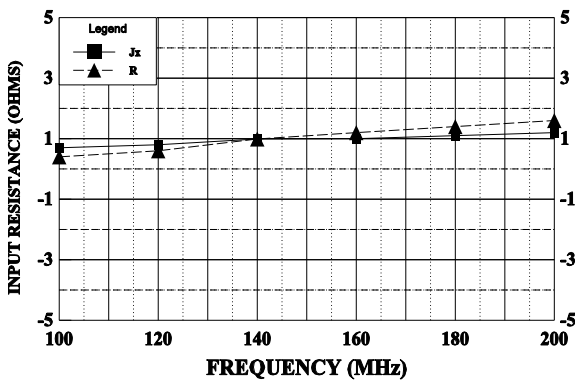


**POWER GAIN VS FREQUENCY**



**SERIES INPUT IMPEDANCE vs FREQUENCY**

Pout=120W Vcc=27V



**SERIES LOAD IMPEDANCE vs FREQUENCY**

Po=120W Vcc=27V

