MOTOROLA SEMICONDUCTOR TECHNICAL DATA

The RF Line Integrated VHF-UHF Linear Power Amplifier

... designed for wideband linear applications in the 100 to 500 MHz frequency range. Motorola class A high-power transistors provide excellent ITOs, high gain, and wide dynamic range. Designed for high reliability with such standard features as a high-quality power supply, EMI/RFI filter, stainless steel hardware and many MIL-STD heavy duty components. Each unit undergoes 24-hour burn-in prior to final test and Q/A.

- All Class "A"
- Operates from 115 Vac Power Source
- Frequency Range 100 to 500 MHz
- Output Power 6.0 Watts Minimum
- Gain 31 dB
- Linearity +48.5 dBm Typ ITO
- Noise Figure 6.0 dB Typ @ f = 500 MHz
- 50 Ohm Input/Output Impedance
- · Heavy Duty Machined Housing with Dip Brazed Plenum Assembly
- · Forced Air Cooling

PAA0105-29-6L

6.0 WATT
100-500 MHz
LINEAR POWER
AMPLIFIER ASSEMBLY



ELECTRICAL CHARACTERISTICS

Symbol	Characteristics	Test Conditions	Min	Тур	Мах	Unit
SSG	Small Signal Gain	f = 100-500 MHz	29	31		dB
f _r	Frequency Response	f = 100-500 MHz, P _O = 6.0 W		± 1.5	± 2.0	dB
Po	Power Output	f = 100-500 MHz	6.0	8.0		w
NF	Noise Figure	f = 100-500 MHz		6.0	7.0	dB
ITO	Third Order Intercept Point	f = 100-500 MHz	+ 47.5	+ 48.5		dBm
DSO	Second Harmonic Attenuation	f = 200-1000 MHz	- 15	- 20		dB
P _{sat}	Saturated Power	f = 100-500 MHz	8.0	10		w
VSWR	Input (Ref = 50 Ω) Output (Ref = 50 Ω)	f = 100-500 MHz f = 100-500 MHz		3.0:1 2.0:1	3.5:1 3.0:1	
VSWR Load	VSWR Survival	P _O = 6.0 W CW f = 100-500 MHz			∞:1	
Pin	AC Input	V _{in} = 115 Vac, 1.0φ, 60 Hz		85	100	w