



DESCRIPTION

The PA25-VHF-L-36 is a versatile output or driver pallet amplifier. Offering a typical 40dB gain, this two stage amplifier can be configured as a Class A driver or Class AB output stage with no circuit changes required. All gold-metallized MOSFETs are used in its construction.

- No RF assembly or circuit tuning
- 25 watts of linear output power minimum
- 40dB typical gain at channel 6
- Combined video and aural at full rated power
- Modular construction for ease of integration

TECHNICAL SUMMARY

Frequency Range:	50 to 88 MHz
P1dB:	60 Watts CW
Class:	A / AB
Supply Voltage:	28 V
Gain:	36 dB
Efficiency:	10 %
Temperature Range:	0 to +60 °C
Max VSWR:	5 : 1

ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	50		88	MHz	
P1dB		60		W, CW	
Linear Power Out	25			W, Pk	
IMD3	-54	-58		dBc	For 2 tones, 1MHz spacing, 25W PEP
Power Input	8	10	13	W, CW	
Gain	36			dB	
Vsupply	26	28	32	V, DC	
Drain Current		3	5	A, DC	
Input VSWR		1.2:1	1.5:1		
Insertion Phase Variation		±5		°	Unit to unit
Gain Variation		±1		dB	Unit to unit
F2 Second Harmonic		-15		dBc	
F3 Third Harmonic		-25		dBc	
Operating Temperature	0		+60	°C	
Physical Dimensions					2.0" x 5.0" x 1.0"

All specifications valid for 50 Ω output load, $V_{sup} = +28VDC$, $I_{dq} = 2.77A$

ABSOLUTE MAXIMUM RATINGS

Parameter	Value	Units	Notes
Maximum Operating Voltage	32	V, DC	
Stable Operating Voltage	26 to 32	V, DC	
Maximum Bias Current, Q1	0.25	A, DC	Factory set to 0.02A
Maximum Bias Current, Q4	3.0	A, DC	Factory set to 2.75A
Maximum Drain Current	5	A, DC	
Load Mismatch Survival	5:1		
Storage Temperature	-40 to +105	°C	
Max Operating Baseplate Temperature	+60	°C	

FEATURES

- Temperature compensated bias
- Temperature controller - analog temperature output
- High temperature alarm with selectable automatic PA disable
- High temperature alarm output
- Amplifier disable
- Current sense, each transistor
- Connectorize power and I/O
- Flexible RF locations