



## DESCRIPTION

The PA25-VHF-H-34 is a versatile output or driver pallet amplifier. Offering a minimum of 34dB 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 construction.

- No RF assembly or circuit tuning
- 25 watts of linear output power minimum
- 34dB typical gain at channel 13
- Combined video and aural at full rated power
- Modular construction for ease of integration
- Proper heatsinking is required

## TECHNICAL SUMMARY

Frequency Range:	170 to 230 MHz
P1dB:	50 Watts CW
Class:	A / AB
Supply Voltage:	28 V
Gain:	34 dB
Efficiency:	11 %
Temperature Range:	0 to +60 °C
Max VSWR:	5 : 1

### ELECTRICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Units	Notes
Frequency	170		230	MHz	
P1dB	50			W, CW	
Linear Power Out	25	40		W, Pk	
IMD3	-54	-58		dBc	For 2 tones, 1MHz spacing, 25W PEP
Power Input	8	10	13	+dBm	
Gain		34		dB	
Vsupply		28		V, DC	
Drain Current		3		A, DC	
Input VSWR		1.1:1	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	
Maximum Bias Current, Q2	3.0	A, DC	
Maximum Drain Current	5	A, DC	
Load Mismatch Survival	3:1		
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
- Connectorized power and I/O