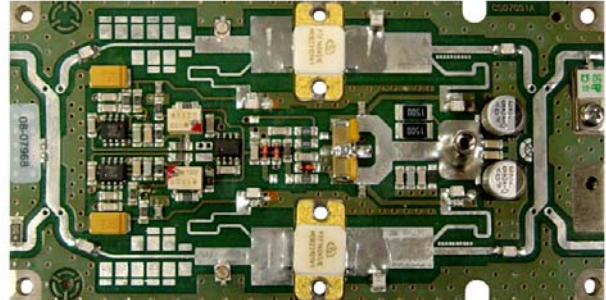




ZH1417/50 MIL GRADE HIGH POWER AMPLIFIER

This is a high power broadband amplifier for labs or testing purposes. This amplifier is excellent for SUHF band 1,400 MHz- 1,700 MHz. The gain is over 14 dB. The maximum power is 50 W. Minimum required driving power is 2 W. This amplifier can be used for lab testing or TV applications since the linearity are excellent.



Dimensions: 5.0 " X 25 "

- 1400 - 1700 MHz
- 28 ÷ 32 Volts (30V nominal)
- Input/Output 50 Ω - 50 Ω
- Pout : 50W CW, 15Wrms DAB
- Shoulder -28dBc
- Gain : 14 dB min
- Class AB
- Devices: MRF284 or equivalent
- Connectorized version available

ABSOLUTE MAXIMUM RATINGS (Device Flange T = 70 °C)

Symbol	Parameter	Value	Unit
Vs	Voltage Supply	35	V dc
Is	Current Supply	5	A dc
Tstg	Storage Temperature Range	-30 + 100	°C
Tc	Operating Base Plate Temperature	0 + 751	°C
ψ	VSWR max	3:1 all phase angle	-

ELECTRICAL SPECIFICATIONS (Base Plate T. = 45 °C, 50Ω loaded, Vd = 30 V)

Symbol	Parameter	Test Conditions	Value			Unit
			Min	Typ	Max	
BW	Bandwidth	Pout = 50 W (CW)	1400	-	1700	MHz
Gp	Power gain	Pref = 15 W (CW)	14	14	-	dB
Pout – 1dB	Power Output @ 1dB Compression	Referred to Pout = 15W (CW)	50	-	-	W
Iq	Quiescent Current	Pout = 0 W – Total3 *	-	-	1	A
I _{tot}	@ PMax		-		3,5	A
lrl	Input return loss	Pout = 50 W CW or 15Wrms DAB	16	18	-	dB
ψ	Load mismatch	Pref = 50 W CW, f= 1400MHz, load VSWR = 2:1, all phase angles	No degradation in Pout			
Gr	Gain Flatness	Pref = 50 W CW, BW: 1400-1700MHz		±0.5	±1	dB
η	Drain Efficiency	Pout = 50 W (CW)	35	45	-	%

PC BOARD LAYOUT

