

Broadband VHF Power Module, 64W

30 - 400 MHz

PHA4000-2

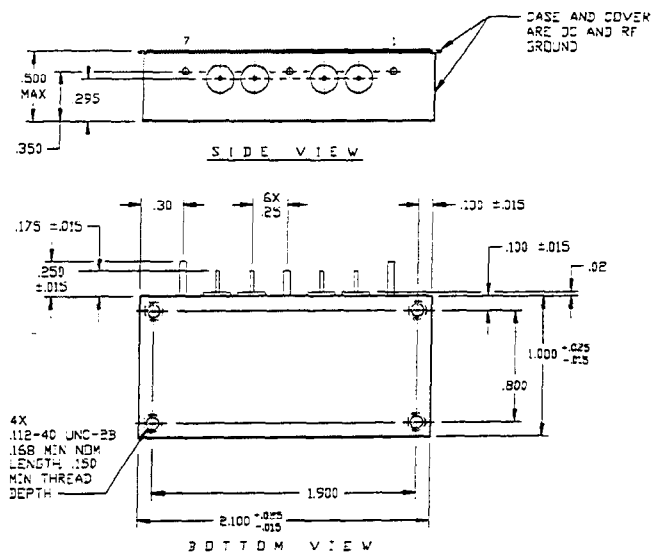
V2.00

Features

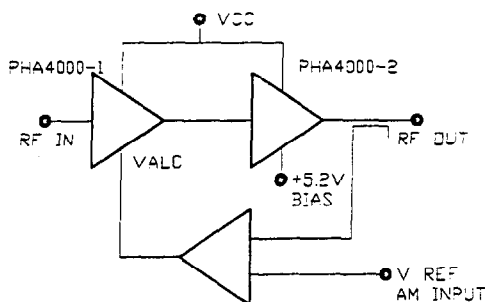
- Broadband Operation 30 to 400 MHz
- High Saturated Output Power - Greater than 54 Watts
- Thousands of Sets in Use Worldwide
- Optimized for Airborne Environment
- Built to MIL Standards

Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Supply Voltage	V_{CC}	30	V
Input Power	P_{IN}	16	W
Output Power	P_{OUT}	80	W
Bias Voltage	V_B	150	mA
Operating Case Temp.	T_C	-30 to +100	°C
Storage Temperature	T_{STG}	-40 to +125	°C



Application



Pin Configuration

Pin	Description
1	Ground (GP1)
2	RF Input (FT1)
3	+5.2 Volts (FT2)
4	Ground (GP2)
5	+27 Volts (FT3)
6	RF Output (FT4)
7	Ground (GP3)

Electrical Characteristics at 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Output Power	P_{OUT}	64	-	W	$V_{CC}=27\text{ V}$, $P_{IN}=13\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Power Gain	G_P	7	-	dB	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Collector Efficiency	η_c	35	-	%	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Input VSWR	VSWR	-	4:1	-	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Load VSWR Tolerance	VSWR-T	-	2.5:1	-	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Gain Variation With Freq	G_{VAR}	-	+/-1.5	dB	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Harmonic Output	-	-	-15	dBc	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$
Spurious Output	S	-	-80	dBc	$V_{CC}=27\text{ V}$, $P_{OUT}=64\text{ W}$, $F=30\text{-}88, 116\text{-}174, 225\text{-}400\text{ MHz}$