

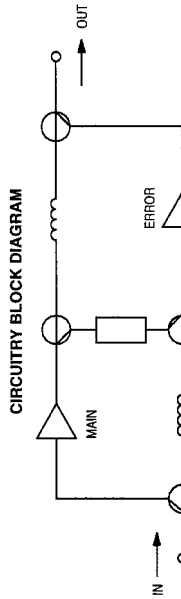
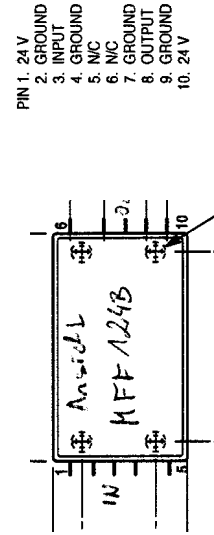
MOTOROLA
SEMICONDUCTOR TECHNICAL DATA

Order this document
by MFF124B/D

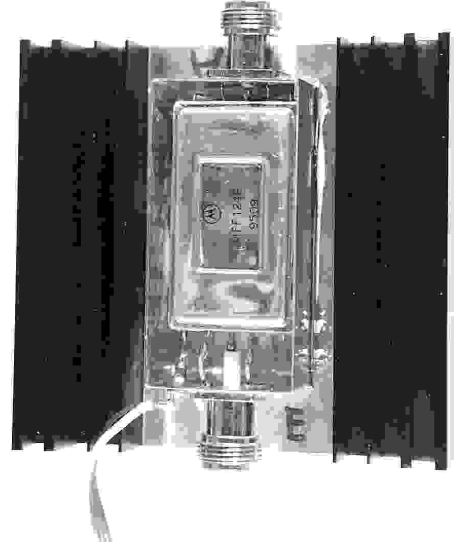
**The RF Line
450 MHz CATV
Feedforward Amplifier**

Designed for broadband applications requiring low-distortion amplification. Specifically intended for CATV market requirements. Two hybrid amplifiers along with couplers and delay lines are packaged together to provide extremely low distortion products at conventional CATV amplifier output levels.

- Specifically Designed to Provide Improved Performance in 450 MHz CATV Applications
- Distortion Components Reduced more than 20 dB from Conventional CATV Hybrid Amplifiers
- Specified for 60-Channel Performance
- Fully Shielded Metal Package



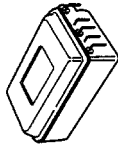
PERFORMANCE MEASUREMENT
Motorola test fixture: P/N FF124BTF is necessary for accurate measurement.



Musteraufbau für genug Kühlung ist zu sorgen.

MFF124B

24 dB
40-450 MHz
60-CHANNEL
CATV
FEEDFORWARD
AMPLIFIER



CASE 825A-03, STYLE 2

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
RF Voltage Input (Single Tone)	V_{in}	+55	dBmV
DC Supply Voltage	V_{CC}	28	Vdc
Operating Case Temperature Range	T_C	-20 to +100	°C
Storage Temperature Range	T_{stg}	-40 to +100	°C

ELECTRICAL CHARACTERISTICS ($V_{CC} = 24 V$, $T_C = 50^\circ C$, 75 Ω system unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	40	—	550	MHz
Power Gain — 50 MHz	Gp	23.4	24	24.6	dB
Slope	S	+0.2	—	+1.4	dB
Gain Flatness	—	—	—	± 0.2	dB
Return Loss — Input ($f = 40-450$ MHz)	IRL	18	—	—	dB
Return Loss — Output ($f = 40-450$ MHz)	ORL	18	—	—	dB
Second Order Intermodulation Distortion ($V_{out} = +50$ dBmV per ch., ch. A, H2, H22)	IMD	—	—	-80	dB
Cross Modulation Distortion ($V_{out} = 46$ dBmV per ch., ch. 2, 60-channels) ($V_{out} = 46$ dBmV per ch., ch. 2, —, H22)	XMD60	—	-80	—	dB
Composite Triple Beat ($V_{out} = 46$ dBmV per ch., ch. 2, 60-channels) ($V_{out} = 46$ dBmV per ch., ch. 2, —, H22)	CTB	—	-85	—	dB
Noise Figure ($f = 50$ MHz) ($f = 450$ MHz)	NF	—	—	9 10	dB
DC Current	IDC	—	660	725	mA