

# MFC4000B

# AUDIO AMPLIFIER

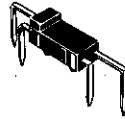
DEVICE DISCONTINUED – CONSULT FACTORY

## 1/4-WATT AUDIO AMPLIFIER

... designed for the output stage of battery-powered portable radios.

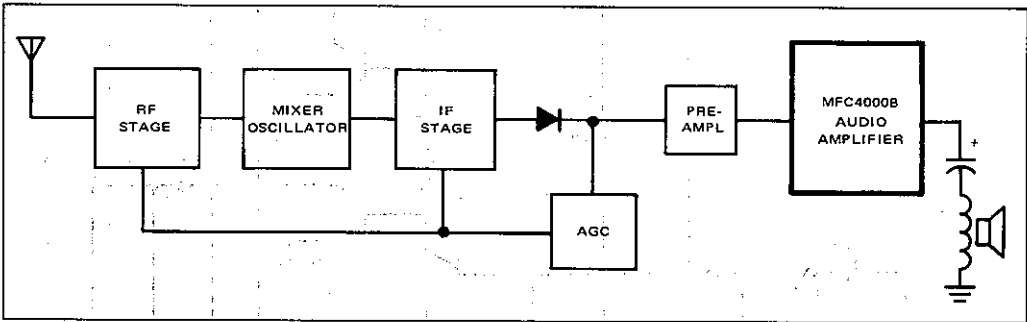
- 250 mW of Audio Output Power
- Low Standby Current – 3.5 mA typical
- Low Harmonic Distortion
- Reduces Component Count in Portable Radios

## 1/4-WATT AUDIO AMPLIFIER SILICON MONOLITHIC FUNCTIONAL CIRCUIT



PLASTIC PACKAGE  
CASE 206A

### TYPICAL APPLICATION



### MAXIMUM RATINGS (T<sub>A</sub> = +25°C unless otherwise noted.)

Rating	Value	Unit
Power Supply Voltage	12	Vdc
Power Dissipation (Package Limitation) (Soldered on a circuit board and held in free air):	1.0	Watt
Derate above T <sub>A</sub> = +25°C	10	mW/°C
Operating Temperature Range	-10 to +75	°C

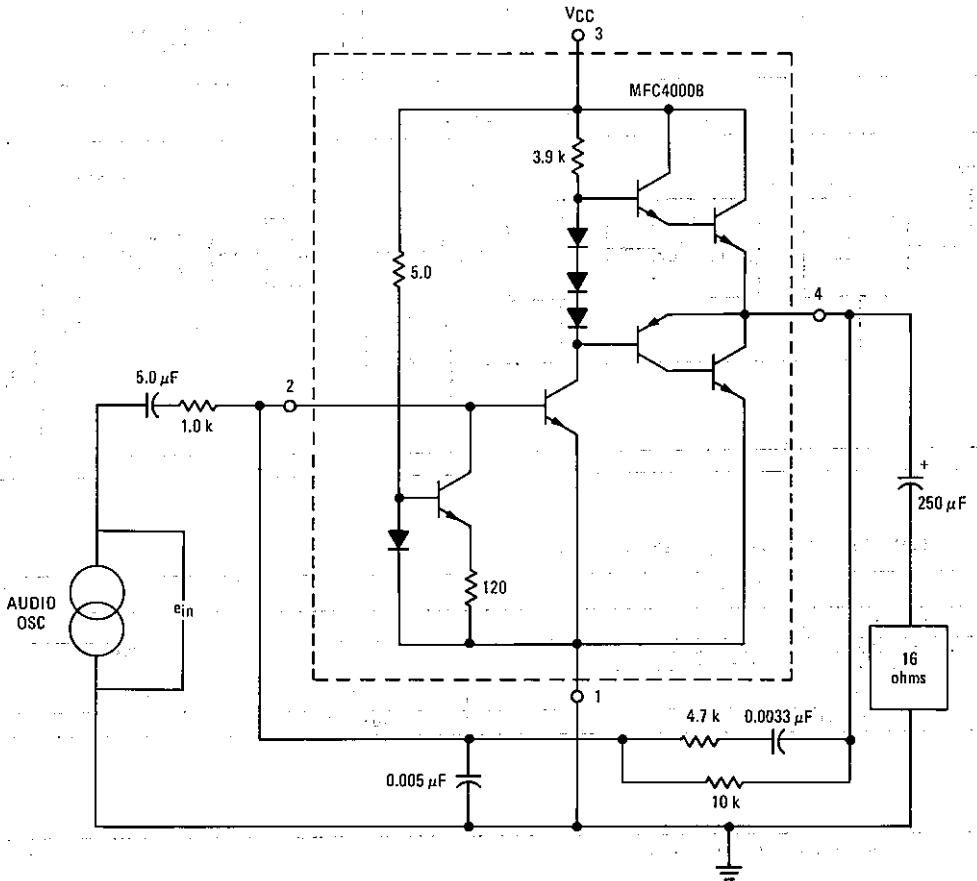
See Packaging Information Section for outline dimensions.

**ELECTRICAL CHARACTERISTICS\*** ( $V_{CC} = 9.0$  Vdc,  $R_L = 16$  Ohms,  $T_A = +25^\circ\text{C}$  unless otherwise noted.)

Characteristic	Min	Typ	Max	Unit
Zero Signal Current Drain	—	3.0	5.0	mAdc
Sensitivity $P_O = 250$ mW(RMS)	—	—	240	mV(RMS)
Output Power Total Harmonic Distortion $\leq 10\%$	250	350	—	mW(RMS)
Total Harmonic Distortion $P_O = 50$ mW(RMS) $P_O = 50$ mW(RMS), $V_{CC} = 6.0$ Vdc	—	0.7 4.5	—	%

\*As measured in test circuit shown in Figure 1.

FIGURE 1 – TEST CIRCUIT



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TOTAL HARMONIC DISTORTION versus OUTPUT POWER

FIGURE 2 -  $V_{CC} = 9.0 \text{ Vdc}$

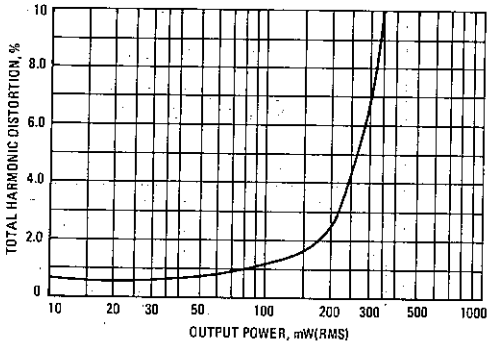


FIGURE 3 -  $V_{CC} = 6.0 \text{ Vdc}$

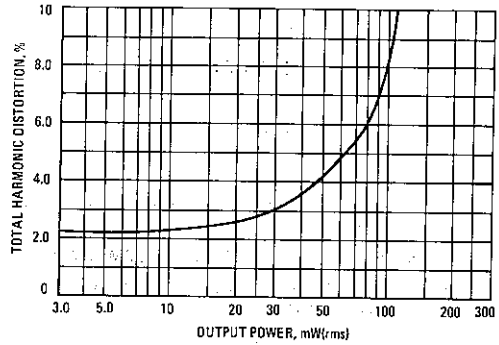


FIGURE 4 - CURRENT DRAIN versus OUTPUT POWER

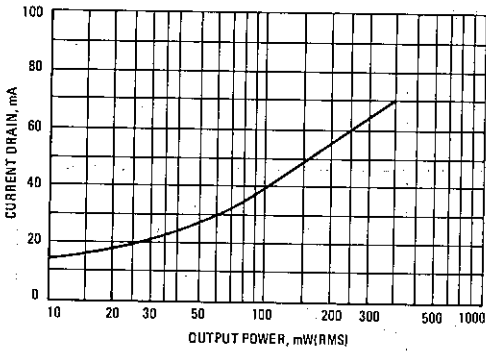


FIGURE 5 - TOTAL HARMONIC DISTORTION versus SUPPLY VOLTAGE

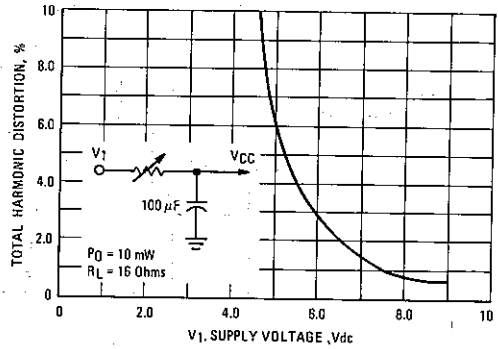


FIGURE 6 - TYPICAL CIRCUIT APPLICATION

