MFC8000 thru MFC8002

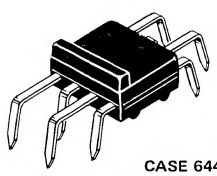
MONOLITHIC DUAL STEREO AMPLIFIER

. . . designed for the input stage of stereo power amplifiers.

- Excellent Channel Separation – 60 dB minimum
- High Gain – h_{FE} = 75 minimum
- Satisfies Both Channel Requirements with One Compact Package
- Selection of Breakdown Voltages to Meet the Particular Applications

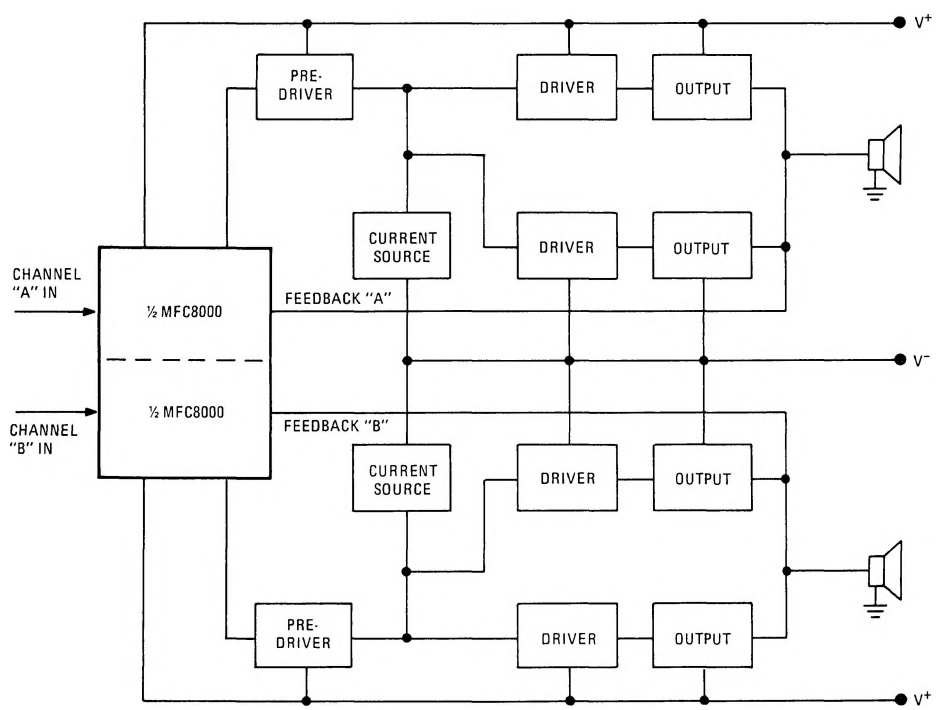
DUAL DIFFERENTIAL AMPLIFIER
(Stereo Input Amplifier)

SILICON MONOLITHIC CONSUMER CIRCUIT



CASE 644A
PLASTIC PACKAGE

TYPICAL APPLICATION



See Packaging Information Section for outline dimensions.

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
Maximum Supply Voltage – MFC8000 MFC8001 MFC8002	V^+	40 50 60	Vdc
Power Dissipation (Package Limitation) (Soldered on a circuit board) Derate above T_A = 25°C	P_D	1.0 10	Watt mW/°C
Operating Temperature Range	T_A	-10 to +75	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage (I_C = 1.0 mAdc, I_B = 0) MFC8000 MFC8001 MFC8002	BV_{CEO}	 40 50 60	 – – –	 – – –	Vdc
DC Current Gain (V_{CE} = 20 Vdc, I_C = 1.0 mAdc)	h_{FE}	75	100	–	–
Base Differential Voltage (V_{CE} = 20 Vdc, I_C = 1.0 mAdc)	$\lvert\Delta V_{BE_3} - \Delta V_{BE_2}\rvert$ $\lvert\Delta V_{BE_8} - \Delta V_{BE_7}\rvert$	–	–	15	mVdc
Base Differential Current (V_{CE} = 20 Vdc, I_C = 1.0 mAdc)	$\lvert\Delta I_{B_3} - \Delta I_{B_2}\rvert$ $\lvert\Delta I_{B_8} - \Delta I_{B_7}\rvert$	–	–	1.0	μAdc
Channel Separation (Pins 2,3,8 grounded, signal at pin 7, $e_{out\,1}$ at pin 6, $e_{out\,2}$ at pin 4)	$e_{out\,1}$ $e_{out\,2}$	60	–	–	dB

CIRCUIT SCHEMATIC