AN278

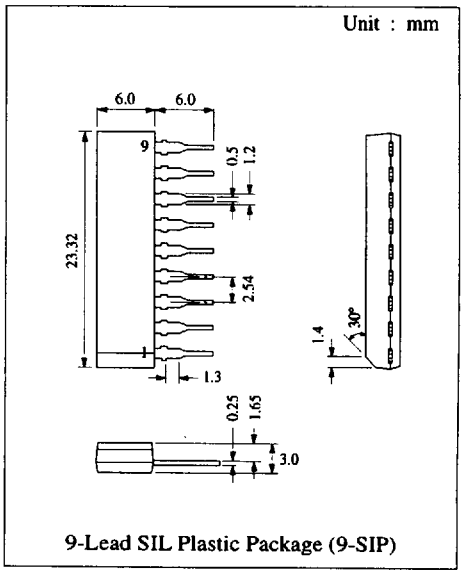
FM IF Amplifier Circuit

■ Description

The AN278 is a monolithic integrated circuit designed for FM IF Amplifier Circuit suitable in Hi-Fi, Car Stereo and TV.

■ Features

- Uniformity in limiter levels and symmetry in characteristics
- Suitable for 2nd and 3rd stage direct coupling, and connection with ceramic filters is possible
- Limiter level sufficient for PLL multiplex operation
- Level meter circuit can be connected
- Compact 9-lead single-in-line package

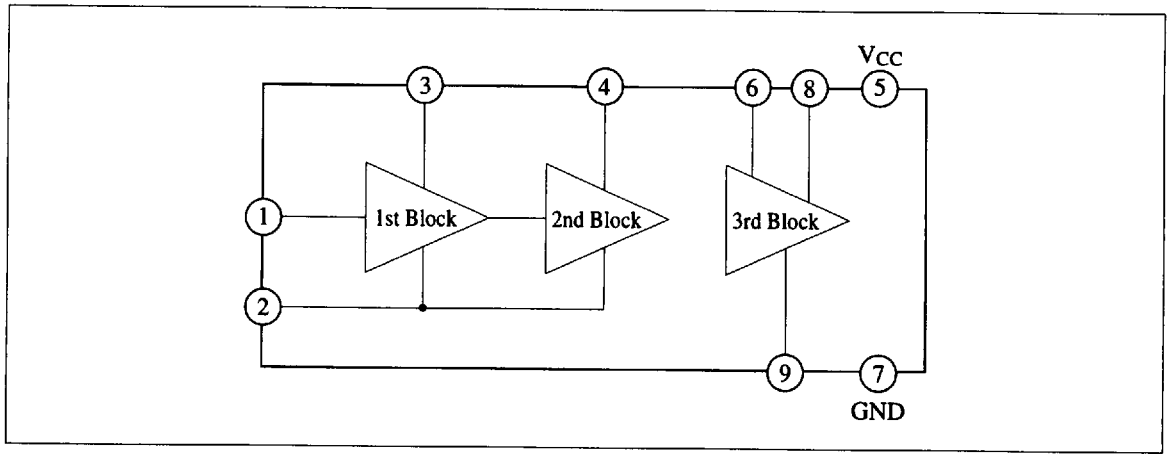


9-Lead SIL Plastic Package (9-SIP)

■ Pin

Pin No.	Pin Name
1	FM 1st IF input
2	By-pass
3	Level Output
4	FM 2nd IF Input
5	V_{CC}
6	FM 3rd IF Input
7	GND
8	FM 3rd IF Output
9	By-pass

■ Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

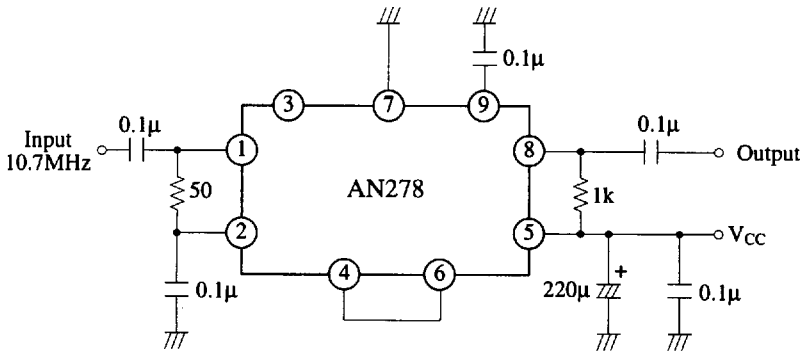
Item	Symbol	Rating	Unit
Supply Voltage	V_{CC}	12	V
Supply Current	I_{CC}	22	mA
Power Dissipation (Ta ≤ 75°C)	P_D	270	mW
Operating Ambient Temperature	Topr	-20 ~ +75	°C
Storage Temperature	Tstg	-55 ~ +125	°C

Operating Supply Voltage Range: V_{CC} = 6.0V ~ 12.0V

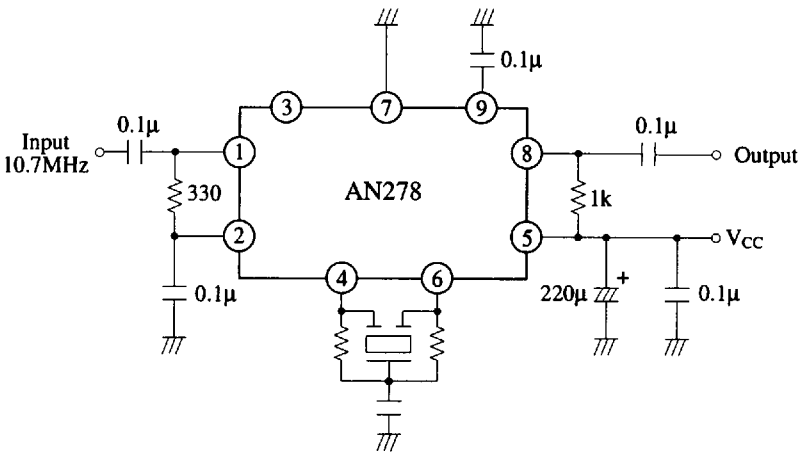
■ Electrical Characteristics (V_{CC}=9V, Ta=25°C)

Item	Symbol	Condition	min.	typ.	max.	Unit
Total Circuit Current	I_{tot}	V_{in} = 0mV	8	10.5	12.9	mA
Output Current	Io	V_{in} = 0mV	1.9	2.4	2.9	mA
Voltage Gain	Gv	V_{in} = 40dBμ, f = 10.7MHz	72.5	75.0	77.5	dB
Output Voltage	V_O	V_{in} = 80dBμ	0.9	1.1		V

Test Circuit



■ Application Circuit



■ Characteristics Curve