

# BIPOLAR ANALOG INTEGRATED CIRCUIT

## $\mu$ PC1176C

### FM NOISE CANCELLER

### SILICON BIPOLAR MONOLITHIC INTEGRATED CIRCUIT

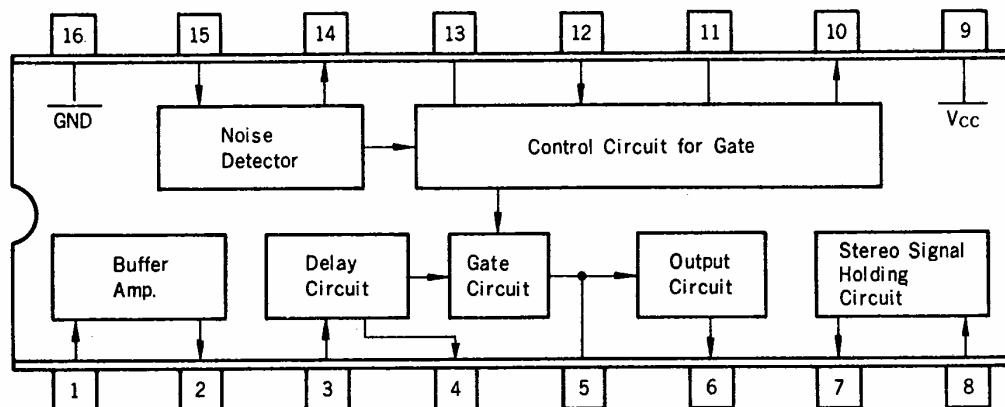
#### DESCRIPTION

$\mu$ PC1176C, a monolithic integrated circuit, is an FM Noise Canceller for use in automotive radio receivers. The incoming noise such as that from car ignition can be suppressed. Internally, buffer-amplifier, delay circuit, gate circuit, noise detector, control circuit for gate and stereo signal holding circuit are included.

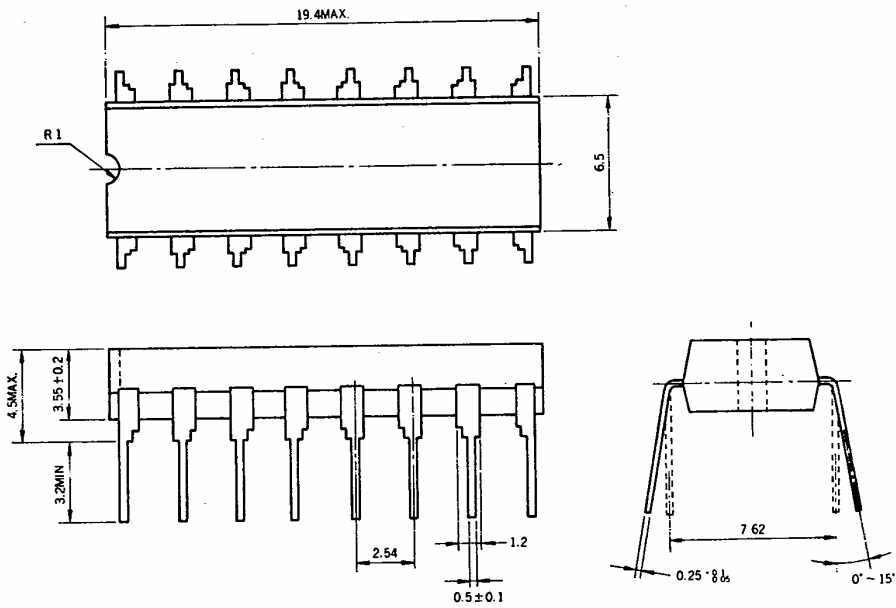
#### FEATURES

- Effective pulsive noise suppression.
- Minimum distortion level due to the stereo signal holding circuit.
- Automatic change of the blanking time, according to noise intensity.
- Excellent response for highly repetitive noise.

#### BLOCK DIAGRAM (Top View)



**PACKAGE DIMENSIONS (in millimeters)**



**ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)**

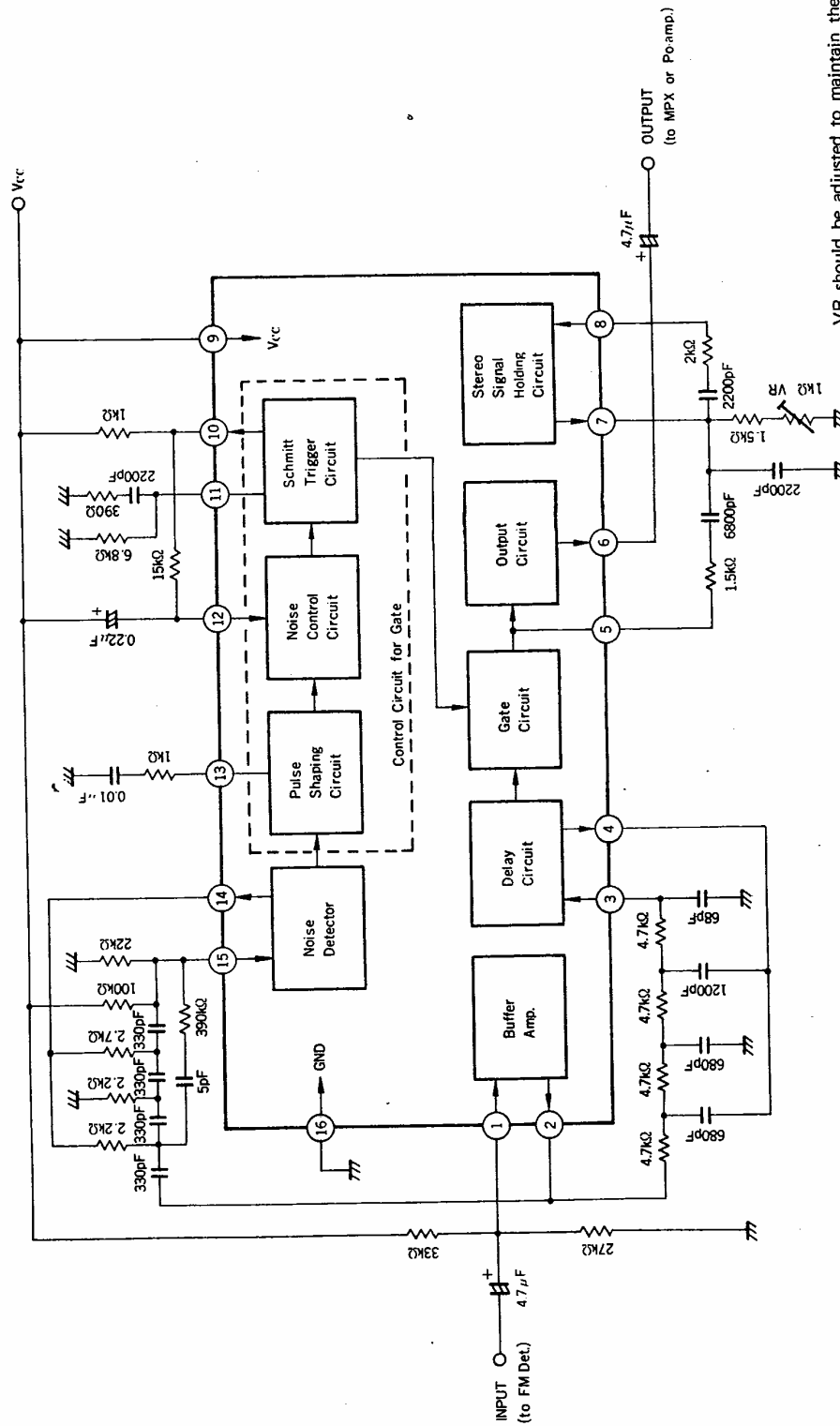
Supply Voltage	V <sub>CC</sub>	15	V
Package Dissipation	PD	350*	mW
Operating Temperature	T <sub>opt</sub>	-20 to +75	°C
Storage Temperature	T <sub>stg</sub>	-40 to +125	°C

\*Ta = 75°C

**ELECTRICAL CHARACTERISTICS (Ta = 25°C, V<sub>CC</sub> = 10V)**

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Circuit Current	I <sub>CC</sub>	13	16.5	23	mA	v <sub>i</sub> = 0
Voltage Gain	A <sub>v</sub>	-0.3	0.7	1.7	dB	v <sub>i</sub> = 500mVr.m.s., f = 1kHz
Blanking Time	T <sub>B</sub>		30		μs	v <sub>i</sub> = 500mVp, f = 1kHz, tw = 1μs
Triggering Voltage	V <sub>T</sub>		40		mVp	f = 1kHz, tw = 10μs

**TYPICAL APPLICATION CIRCUIT**



VR should be adjusted to maintain the amplitude and frequency of the 38 kHz signal when the gate circuit is turned off.

Diagram of Components Mounted on a Printed-Circuit Board (Bottom View)

