BIPOLAR ANALOG INTEGRATED CIRCUIT
μPC1176C

FM NOISE CANCELLER
SILICON BIPOLAR MONOLITHIC INTEGRATED CIRCUIT

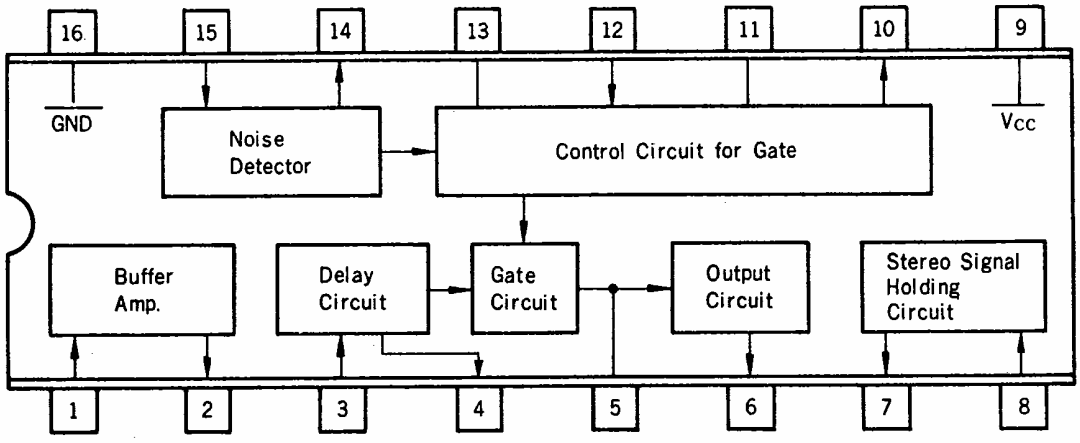
DESCRIPTION

μPC1176C, 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.

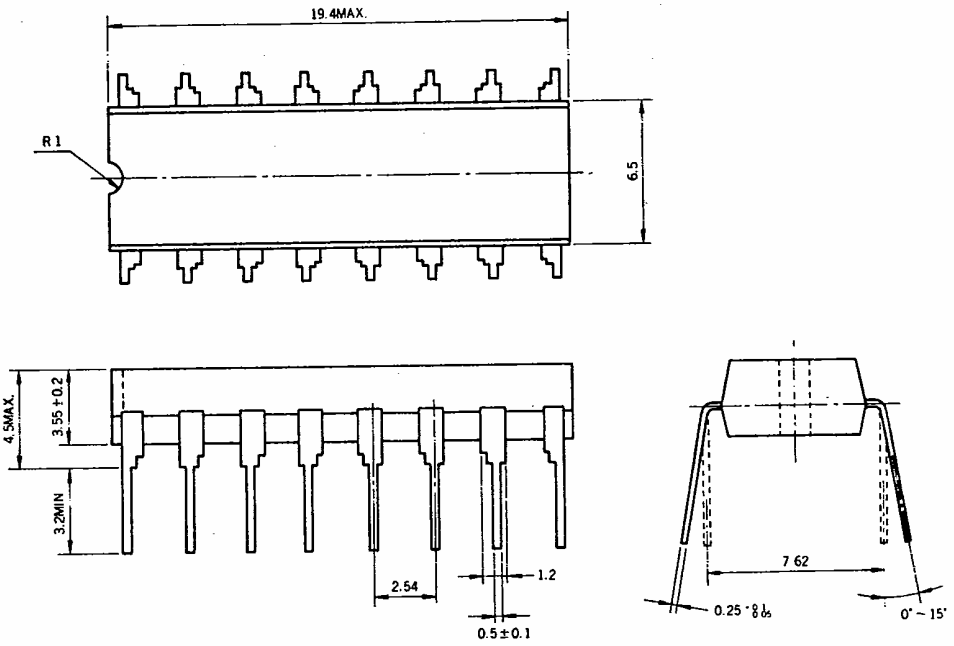
FEATURES

- 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)



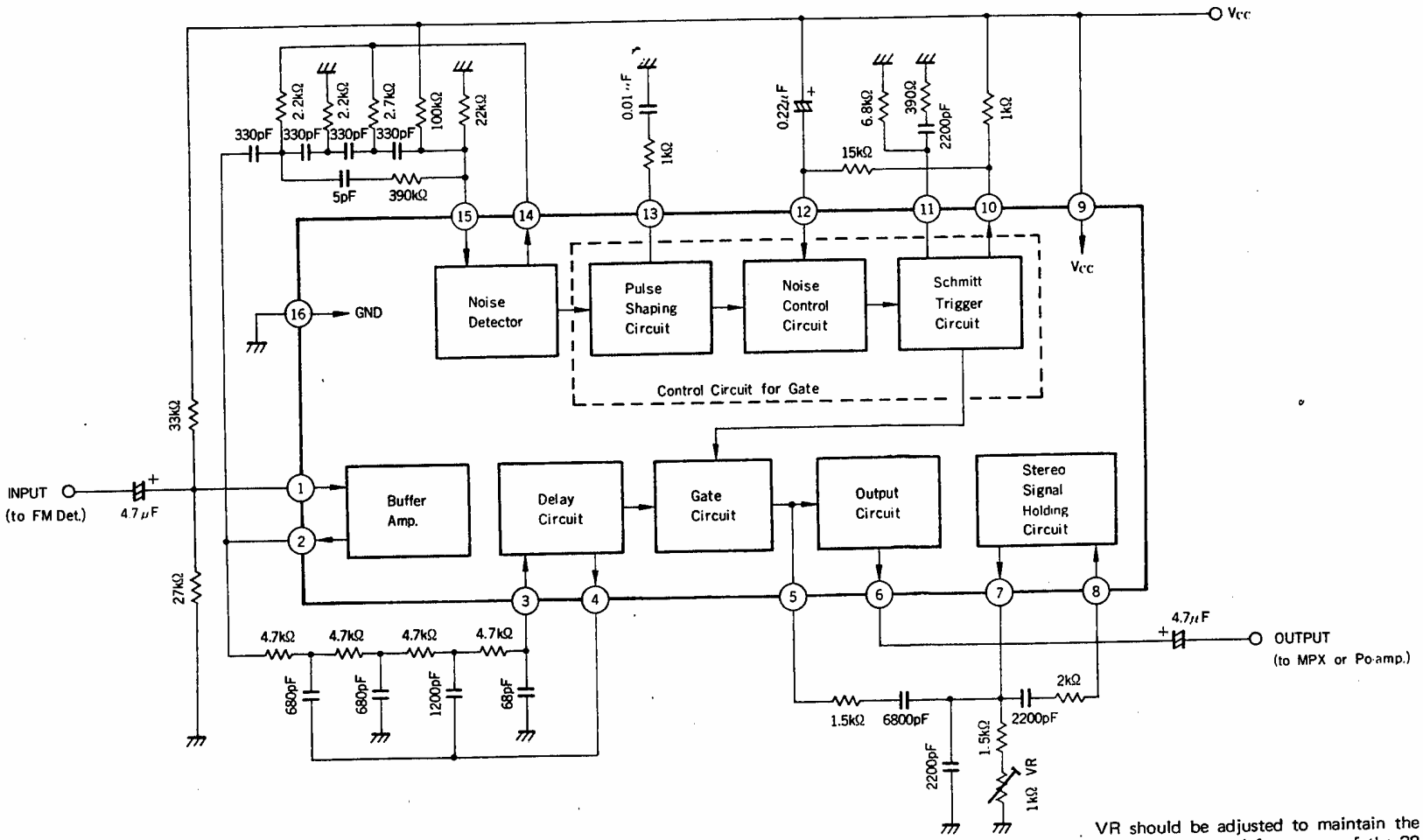
ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Supply Voltage	V_{CC}	15	V
Package Dissipation	PD	350*	mW
Operating Temperature	T_{opt}	-20 to +75	°C
Storage Temperature	T_{stg}	-40 to +125	°C
		*Ta = 75°C	

ELECTRICAL CHARACTERISTICS (Ta = 25°C, V_{CC} = 10V)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Circuit Current	I_{CC}	13	16.5	23	mA	$v_i = 0$
Voltage Gain	A_v	-0.3	0.7	1.7	dB	v_i = 500mVr.m.s., f = 1kHz
Blanking Time	T_B		30		μs	v_i = 500mVp, f = 1kHz, tw = 1μs
Triggering Voltage	V_T		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)