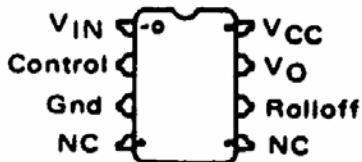
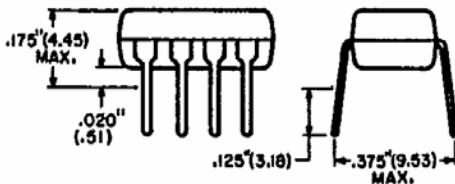
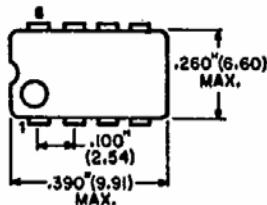




ECG829 Electronic Attenuator

Features

- Designed for use in:
DC operated volume control
Compression and expansion amplifier applications
- Controlled by DC voltage or external variable resistor
- Silicon monolithic integrated circuit



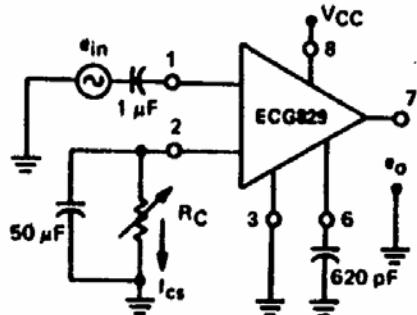
Maximum Ratings ($T_A = +25^\circ\text{C}$ unless otherwise noted.)

Rating	Value	Unit
Power Supply Voltage	20	Vdc
Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above $T_A = 25^\circ\text{C}$	1.2 10	Watt mW/ $^\circ\text{C}$
Operating Temperature Range	0 to +75	$^\circ\text{C}$

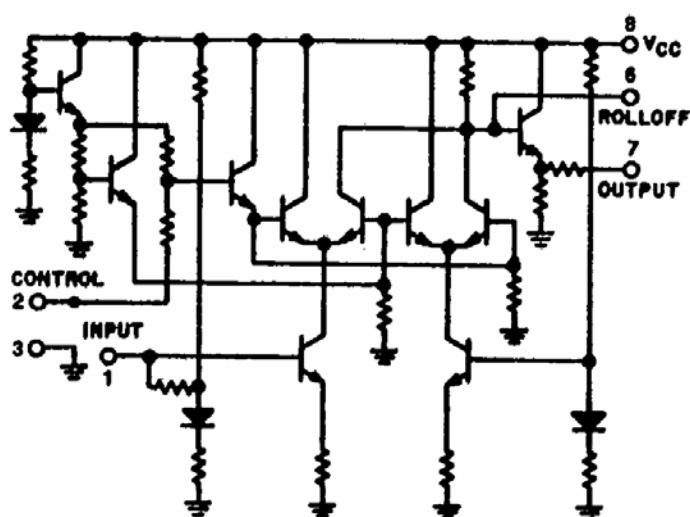
Electrical Characteristics ($e_{in} = 100\text{mV}$ (RMS), $f = 1.0\text{kHz}$, $R_1 = 0$, $V_{cc} = 16\text{Vdc}$, $T_A = +25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Min	Typ	Max	Units
Operating Power Supply Voltage	9.0		18	Vdc
Control Terminal Sink Current ($e_{in} = 0$)			2.0	mAdc
Maximum Input Voltage			0.5	V(RMS)
Voltage Gain	11	13		dB
Attenuation Range ($R_C = 33\text{k}\Omega$)	70	90		dB
Total Harmonic Distortion (Pin 2 Gnd) ($e_{in} = 100\text{mV}$ (RMS), $e_o = A_v \times e_{in}$)		0.6	1.0	%

Test Circuit

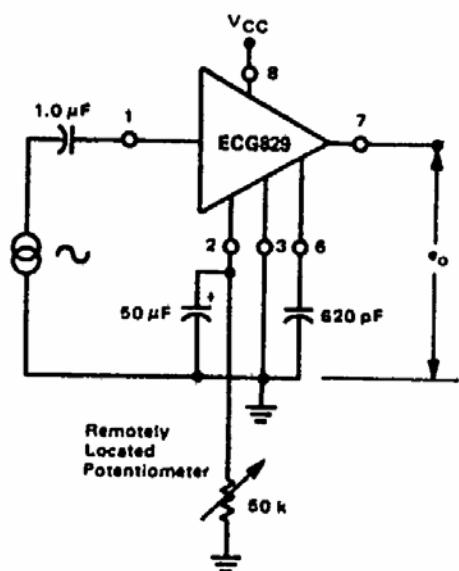


Circuit Schematic



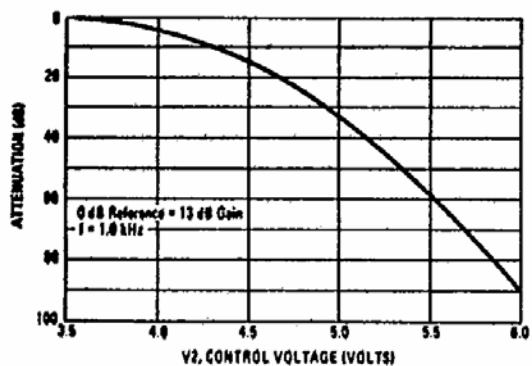
Application

Typical DC "Remote" Volume Control

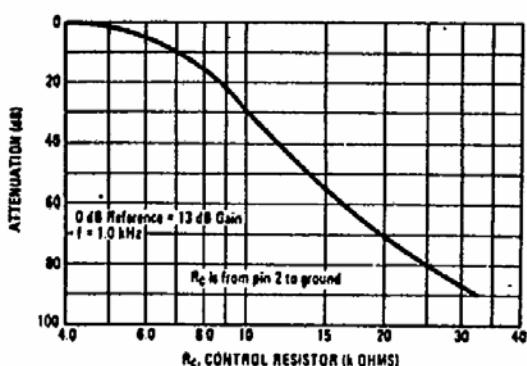


Typical Electrical Characteristics ($V_{cc} = 16\text{Vdc}$, $T_A = +125^\circ\text{C}$ unless otherwise noted.)

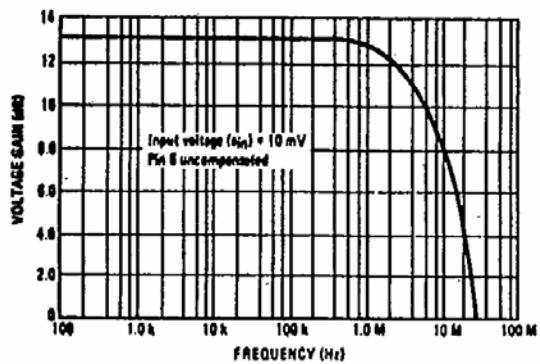
Attenuation versus DC Control Voltage



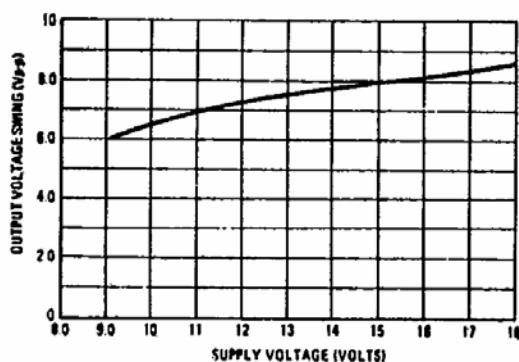
Attenuation versus Control Resistor



Frequency Response



Output Voltage Swing



Total Harmonic Distortion

