

MFC6040

DEVICE DISCONTINUED — CONSULT FACTORY

ELECTRONIC ATTENUATOR

- Designed for use in:
DC Operated Volume Control
Compression and Expansion Amplifier Applications
- Controlled by DC Voltage or External Variable Resistor
- Economical 6-Lead Plastic Package

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

Rating	Value	Unit
Power Supply Voltage	20	Vdc
Power Dissipation @ $T_A = 25^\circ\text{C}$ (Package Limitation)	1.0	Watt
Derate above $T_A = 25^\circ\text{C}$	10	mW/ $^\circ\text{C}$
Operating Temperature Range	0 to +75	$^\circ\text{C}$

ELECTRONIC ATTENUATOR

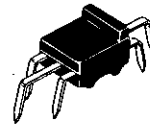
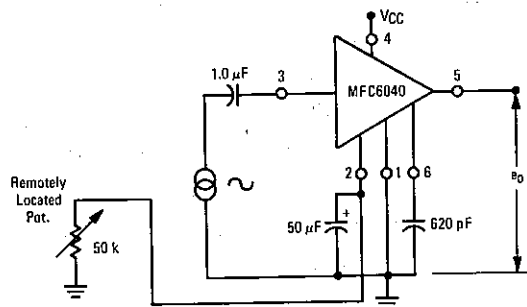
Silicon Monolithic
Integrated CircuitCASE 643A
PLASTIC PACKAGE

FIGURE 1 — TYPICAL DC "REMOTE" VOLUME CONTROL



See Packaging Information Section for outline dimensions.

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.)

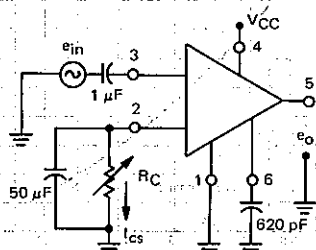
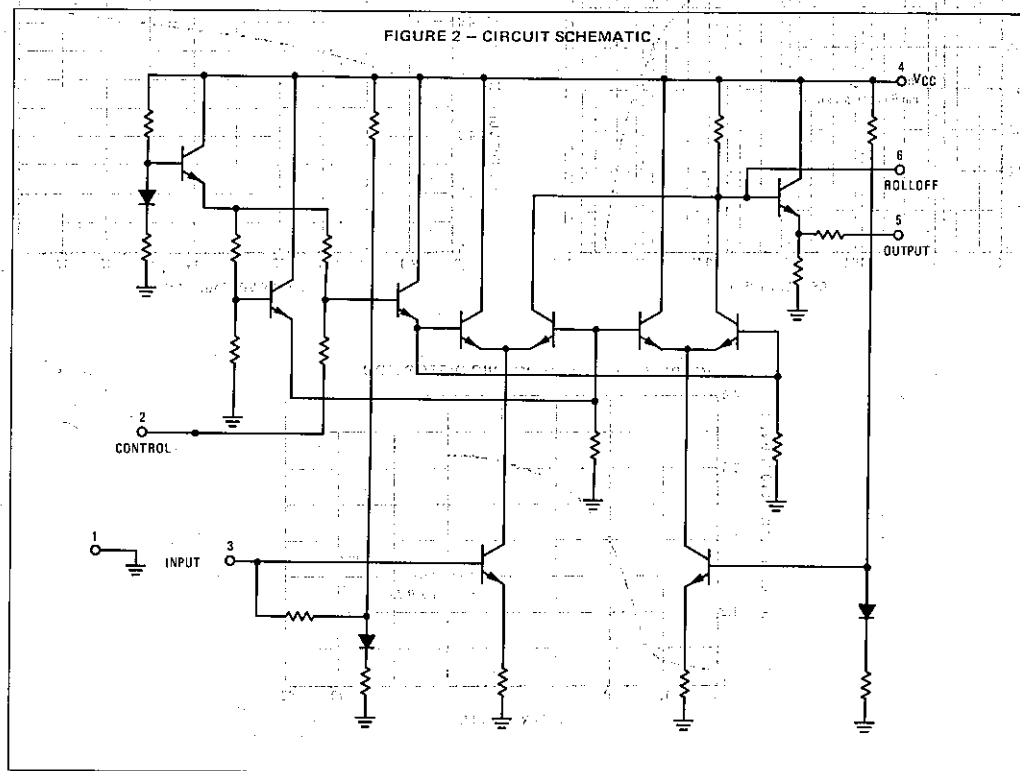
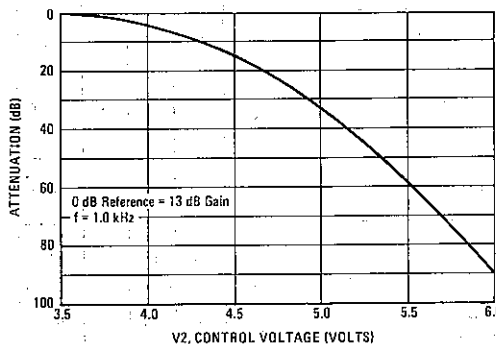
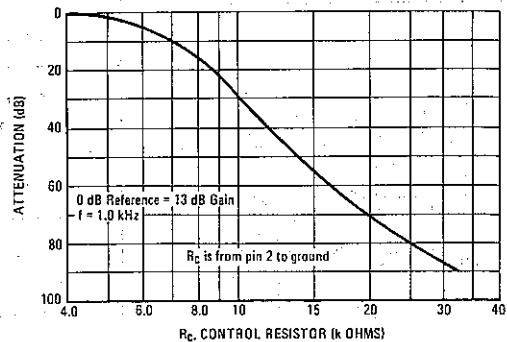
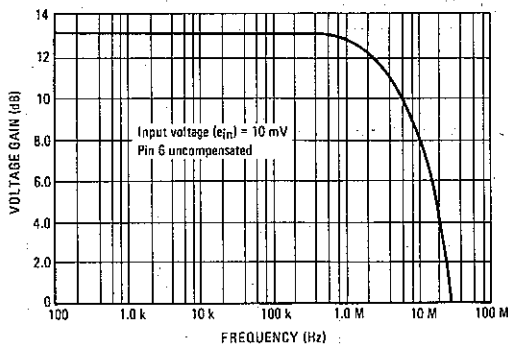
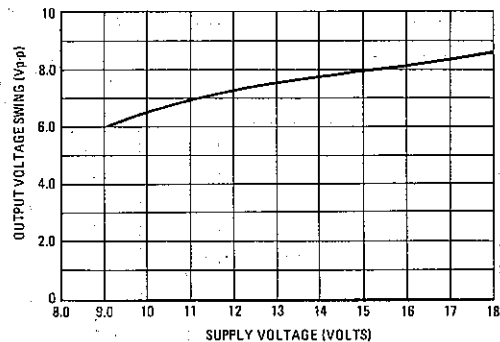
Circuit	Characteristic	Min	Typ	Max	Unit
	Operating Power Supply Voltage	9.0	—	18	Vdc
	Control Terminal Sink Current ($e_{in} = 0$)	—	—	2.0	mAdc
	Maximum Input Voltage	—	—	0.5	V(RMS)
	Voltage Gain	11	13	—	dB
	Attenuation Range ($R_C = 33 \text{ k ohms}$)	70	90	—	dB
	Total Harmonic Distortion (Pin 2 Gnd)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

FIGURE 2 - CIRCUIT SCHEMATIC



TYPICAL ELECTRICAL CHARACTERISTICS
($V_{CC} = 16 \text{ Vdc}$, $T_A = +25^\circ\text{C}$ unless otherwise noted.)

FIGURE 3 – ATTENUATION versus DC CONTROL VOLTAGE

FIGURE 4 – ATTENUATION versus CONTROL RESISTOR

FIGURE 5 – FREQUENCY RESPONSE

FIGURE 6 – OUTPUT VOLTAGE SWING

FIGURE 7 – TOTAL HARMONIC DISTORTION
