



ELECTRONICS, INC.

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NTE829 Integrated Circuit Electronics Attenuator, 90dB @ 1kHz

Features:

- Designed for use in:
 DC Operated Volume Control
 Compression & Expansion Amplifier Applications.
- Controlled by DC Voltage or External Variable Resistor
- Economical 8-Lead DIP Package
- Temperature Range: 0° to +75°C

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

| | |
|--|------------------------|
| Power Supply Voltage, V_{CC} | 20V |
| Power Dissipation ($T_A = +25^\circ\text{C}$), P_D | 1.2W |
| Derate above 25°C | 10mW/ $^\circ\text{C}$ |
| Operating Ambient Temperature Range, T_{opr} | 0° to +75°C |

Electrical Characteristics: ($e_{in} = 100\text{mV}_{(RMS)}$, $f = 1.0\text{kHz}$, $V_{CC} = 16\text{V}$, $T_A = +25^\circ\text{C}$, unless otherwise indicated)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------|----------|--|-----|-----|-----|-------------|
| Operating Power Supply Voltage | V_{SS} | | 9 | – | 18 | V |
| Control Pin Sink Current | I_C | $e_{in} = 0$ | – | – | 2 | mA |
| Maximum Input Voltage | V_i | | – | – | 0.5 | $V_{(RMS)}$ |
| Voltage Gain | A_V | | 11 | 13 | – | dB |
| Attenuation Range | K | $R_C = 33\text{k}\Omega$ | 70 | 90 | – | dB |
| Total Harmonic Distortion | THD | Pin2 GND, $e_{in} = 100\text{mV}_{(RMS)}$, $e_o = A_V \times e_{in}$ | – | 0.6 | 1.0 | % |

Pin Connection Diagram

