



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 $25^\circ\text{C}$ .....	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

