



ELECTRONICS, INC.

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NTE7145 Integrated Circuit 18W BTL x 2 Ch Audio Power Amplifier

Description:

The NTE7145 is a stereo audio power IC in a 17-Lead Staggered SIP type package designed for car audio use. This device has 2 built-in channels to reduce the characteristics difference between L and R channels. In addition, the functions of stand-by, muting, and a variety of protections circuits are involved.

Features:

- High Power:
 - $P_{OUT(1)} = 18W$ (Typ)/Channel ($V_{CC} = 14.4V$, $f = 1kHz$, $THD = 10%$, $R_L = 4\Omega$)
 - $P_{OUT(2)} = 15W$ (Typ)/Channel ($V_{CC} = 13.2V$, $f = 1kHz$, $THD = 10%$, $R_L = 4\Omega$)
- Low Distortion Ratio:
 - $THD = 0.04%$ (Typ) ($V_{CC} = 13.2V$, $f = 1kHz$, $P_{OUT} = 1W$, $R_L = 4\Omega$, $G_V = 50dB$)
- Low Noise:
 - $V_{NO} = 0.30mV_{rms}$ (Typ) ($V_{CC} = 13.2V$, $R_L = 4\Omega$, $G_V = 50dB$, $R_g = 0\Omega$, $BW = 20Hz$ to $20kHz$)
- Built-In Stand-By Function (With Pin4 set at Low, Power is Turned OFF):
 - $I_{SB} = 1\mu A$ (Typ)
- Built-In Muting Function (With Pin1 set at Low, Power is Turned OFF):
 - V (Mute) = $1V$ (Typ)
- Built-In Various Protection Circuits:
 - Thermal Shut Down
 - Overvoltage
 - OUT→ V_{CC} Short
 - OUT→GND Short
 - OUT-OUT Short
- Operating Supply Voltage: $V_{CC} = 9V$ to $18V$

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

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|---|-------------------------------|
| Peak Supply Voltage (0.2s), $V_{CCsurge}$ | 50V |
| DC Supply Voltage, V_{CCDC} | 25V |
| Operating Supply Voltage, V_{CCopr} | 18V |
| Output Current (Peak), $I_{O(peak)}$ | 9A |
| Power Dissipation, P_D | 50W |
| Operating Temperature Range, T_{opr} | -30° to $+85^\circ C$ |
| Storage Temperature Range, T_{stg} | -55° to $+150^\circ C$ |

