



## NTE1798 Integrated Circuit Dual, AF PO, 6W/Ch

### Features:

- High–Output, Dual–Channel AF Power IC:  
 $P_O = 6W \times 2$ ,  $V_{CC} = 25V$ ,  $R_L = 8\Omega$ ,  $f = 1kHz$
- Low Distortion: THD = 0.1%,  $V_{CC} = 25V$ ,  $R_L = 8\Omega$ ,  $f = 1kHz$ ,  $P_O = 2W$
- Minimum Number of External Components Required (No Bootstrap Capacitor Required)
- Low Pop Noise at Time of Power Switch ON/OFF
- High Ripple Rejection: 58dB Typ
- Wide Supply Voltage Range: 10V to 32V
- On–Chip Protection Against Abnormality (Thermal Shutdown, Overvoltage)

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

|                                                          |                               |
|----------------------------------------------------------|-------------------------------|
| Maximum Supply Voltage, $V_{CCmax}$                      | 35V                           |
| Maximum Output Current, $I_{Opeak}$                      | 3.5A                          |
| Allowable Power Dissipation (With Heat Sink), $P_{Dmax}$ | 20W                           |
| Operating temperature Range, $T_{opr}$                   | $-20^\circ$ to $+75^\circ C$  |
| Storage Temperature Range, $T_{stg}$                     | $-40^\circ$ to $+150^\circ C$ |

### Recommended Operating Conditions: ( $T_A = +25^\circ C$ unless otherwise specified)

|                                      |            |
|--------------------------------------|------------|
| Recommended Supply Voltage, $V_{CC}$ | 25V        |
| Operating Voltage Range, $V_{CCopr}$ | 10V to 32V |
| Recommended Load Resistance, $R_L$   | $8\Omega$  |

### Electrical Characteristics: ( $T_A = +25^\circ C$ , $V_{CC} = 25V$ , $R_L = 8\Omega$ , $f = 1kHz$ unless otherwise specified)

| Parameter                 | Symbol    | Test Conditions                                    | Min | Typ  | Max | Unit |
|---------------------------|-----------|----------------------------------------------------|-----|------|-----|------|
| Quiescent Current         | $I_{CCO}$ |                                                    | 25  | 45   | 90  | mA   |
| Voltage Gain              | $V_G$     |                                                    | 38  | 40   | 42  | dB   |
| Output Power              | $P_O$     | THD = 1%                                           | 5.0 | 6.0  | –   | W    |
| Total Harmonic Distortion | THD       | $P_O = 2W$                                         | –   | 0.1  | 0.8 | %    |
| Output Noise Voltage      | $V_{NO}$  | $R_g = 10k\Omega$ , BW = 20Hz to 20kHz             | –   | 0.25 | 1.0 | mV   |
| Ripple Rejection          | SVRR      | $R_g = 10k\Omega$ , $f_R = 100Hz$ , $45V_R = 0dBm$ | 45  | 58   | –   | dB   |
| Crosstalk                 | CT        | $R_g = 10k\Omega$                                  | 45  | 60   | –   | dB   |
| Channel Balance           | VG        |                                                    | –   | –    | 1.5 | dB   |

**Pin Connection Diagram**  
(Front View)

