



ELECTRONICS, INC.  
44 FARRAND STREET  
BLOOMFIELD, NJ 07003  
(973) 748-5089

## 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° to +75°C
Storage Temperature Range, $T_{stg}$ .....	-40° to +150°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, $R_L$ .....	8Ω

### 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	$I_{CC0}$		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)

<b>10</b>	Output 1
<b>9</b>	V <sub>CC</sub>
<b>8</b>	GND
<b>7</b>	Output 2
<b>6</b>	NFB 2
<b>5</b>	Input 2
<b>4</b>	GND
<b>3</b>	Filter Cap
<b>2</b>	Input 1
<b>1</b>	NFB 1

