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NTE1392 & NTE1393 Integrated Circuit Audio Power Amp, 7W

Description:

The NTE1392 and NTE1393 are class B power amplifiers in a 10-Lead SIP type package designed especially for home tpe stereo amplifiers. These devices provide an output power of 5W at 19V, and also 7W at 22V to an 8Ω load with 10% distortion.

Features:

- Available in Two Different Pin Configurations:
 Normal – NTE1392
 Reverse – NTE1393
- High Output Power: 7W Typ ($V_{CC} = 22V$, $R_L = 8\Omega$, THD = 10%)
- Wide Range of Supply Voltage: 5V to 30V
- Very Low Harmonic and Crossover Distortion
- Thermal Shut-Down Circuit Provided

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

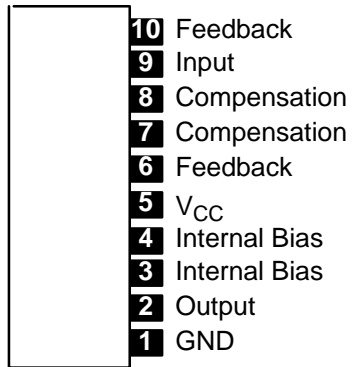
Supply Voltage, V_{CC}	30V
Output Current, I_O	3.75A
Power Dissipation ($T_C = +78^\circ C$), P_T	7.2W
Operating Junction Temperature, T_J	+150°C
Operating Temperature Range, T_{opr}	-20° to +70°C
Storage Temperature Range, T_{stg}	-55° to +125°C
Thermal Resistance, Junction-to-Case, R_{thJC}	10°C/W

Electrical Characteristics: ($T_A = +25^\circ C$, $V_{CC} = 22V$, $R_L = 8\Omega$ unless otherwise specified)

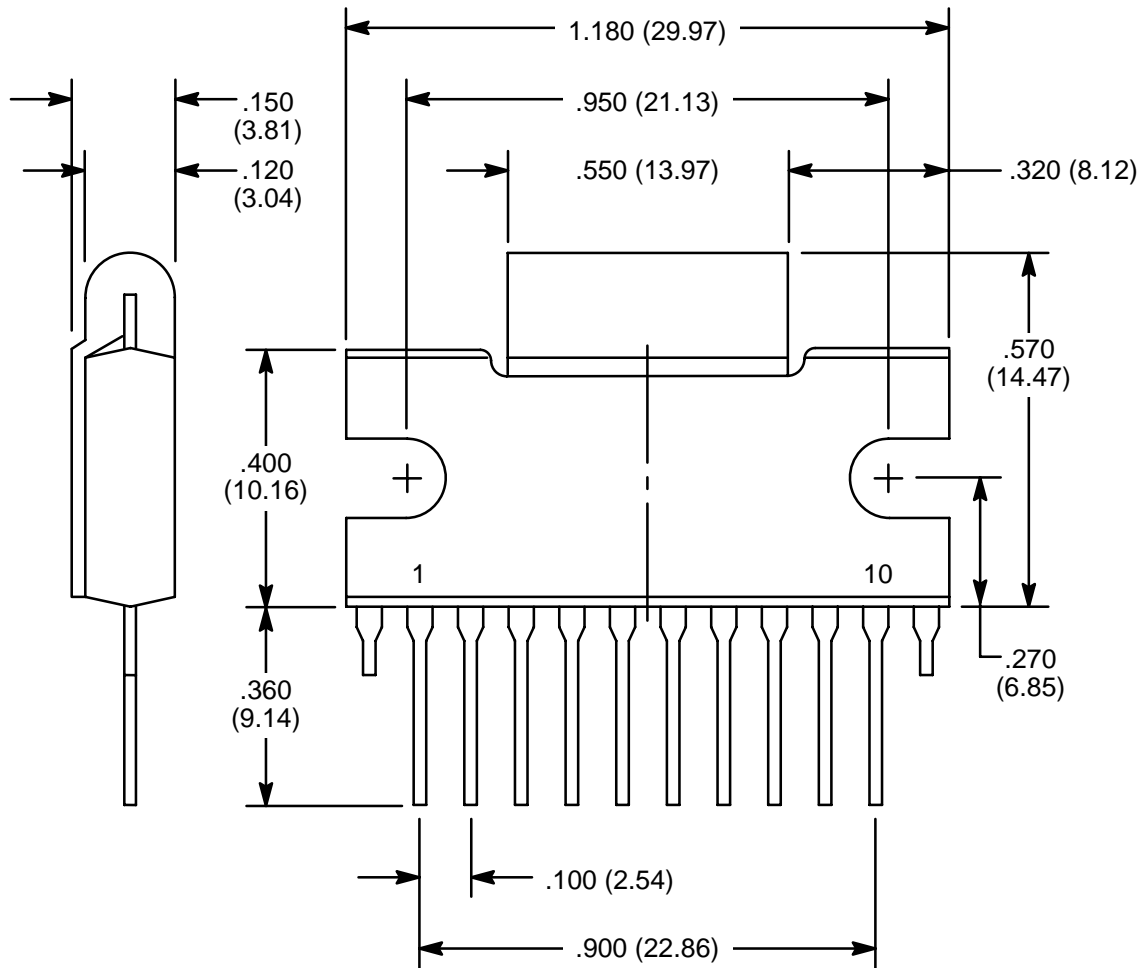
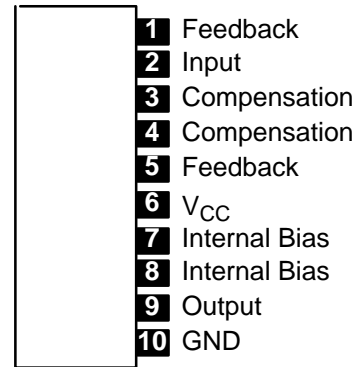
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Output Voltage	V_Q		10	11	12	V
Quiescent Current Drain	I_Q		–	9	20	mA
Input Bias Current	I_B		–	1	–	μA
Output Power	P_{OUT}	THD = 10%, $f = 1kHz$	5.8	7.0	–	W
Total Harmonic Distortion	THD	$P_{OUT} = 0.5W$, $f = 1kHz$	–	0.06	0.8	%
Voltage Gain (Open Loop)	$G_{V(OL)}$	$f = 1kHz$	–	75	–	dB
Voltage Gain (Closed Loop)	G_V	$f = 1kHz$	39	42	45	dB
Noise Output	WBN	$R_g = 10k\Omega$, $f = 20Hz$ to $20kHz$	–	0.3	1.5	mV
Input Resistance	R_{in}	$f = 1kHz$	–	100	–	kΩ
Frequency Response (–3dB)	BW	$C_{106} = 330pF$, $\Delta G_V = -3dB$	60 to 30k			Hz
Supply Voltage Rejection Ratio	SVR	$f_{ripple} = 100Hz$, $R_g = 600\Omega$	38	45	–	dB
Power Band Width (–3dB)	PBW	$C_{106} = 330pF$	40 to 70k			Hz

Pin Connection Diagram

NTE1392
(Front View)



NTE1393
(Front View)



NOTE: Pin1 and Pin10 are **reversed** for NTE1393