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## NTE7207 Integrated Circuit High Output Dual Power Amplifier

**Description:**

The NTE7207 is a 6V to 15V compatible dual power amplifier in a 15-Lead SIP type package designed for use in radio cassette players. This device is equipped with standby switching functions for excellent total harmonic distortion and other basic characteristics.

**Features:**

- High Output:  
 $P_{OUT} = 2.8W$  ( $V_{CC} = 9V, R_L = 3\Omega, THD = 10\%$ )  
 $P_{OUT} = 5.0W$  ( $V_{CC} = 12V, R_L = 3\Omega, THD = 10\%$ )
- Excellent Audio Quality:  
 $THD = 0.1\%$  ( $f = 1kHz, P_O = 0.5W$ )  
 $V_{NO} = 0.3mV_{rms}$  ( $R_g = 10k\Omega$ )  
 $RR = 55dB$  ( $f_{RR} = 100Hz$ )
- Wide Supply Voltage Operating Range:  
 $(V_{CC} = 6V \text{ to } 15V)$
- Switching Noise ("POP" Noise) Generated when the Power is Switched ON and OFF is Low
- Ripple Mixing when Motor Starts has been Prevented
- Built-In Thermal Shutdown Circuit
- Built-In Standby Switch. Output is not Influenced by the Standby Pin Voltage
- Soft Clipping

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

Power Supply Voltage (Note 1), $V_{CC}$ .....	20V
Power Dissipation (Note 2), $P_d$ .....	15W
Operating Temperature Range, $T_{opr}$ .....	-20° to +75°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C

Note 1. Must be within standby values.

Note 2.  $T_A = +75^\circ C$  (when using infinite heatsink).

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Power Supply Voltage	$V_{CC}$		6	-	15	V

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 9\text{V}$ ,  $R_L = 3\Omega$ ,  $R_F = 120\Omega$ ,  $R_g = 600\Omega$ ,  $f = 1\text{kHz}$ , OTL Mode, unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_O$	$V_{IN} = 0V_{rms}$	-	22	45	mA
Rated Output Voltage	$P_{OUT}$	THD = 10%	2.2	2.8	-	W
		THD = 10%, $V_{CC} = 12\text{V}$	4.0	5.0	-	W
Closed-Loop Voltage Gain	$G_{VC}$		43	45	47	dB
Output Noise Voltage	$V_{NO}$	$R_g = 10\text{k}\Omega$ , DIN Audio	-	0.3	1.0	$\text{mV}_{rms}$
Total Harmonic Distortion	THD	$P_{OUT} = 0.5\text{W}$	-	0.1	1.0	%
Ripple Rejection	RR	$f_{RR} = 100\text{Hz}$ , $V_{RR} = 10\text{dBm}$	42	55	-	dB
Crosstalk	CT	$V_o = 0\text{dBm}$	48	65	-	dB
Circuit Current (With Standby Switch OFF)	$I_{OFF}$		-	0	20	$\mu\text{A}$
Standby Pin Current When ON	$I_{SIN}$	$V_{STBY} = V_{CC}$	-	0.15	0.4	mA
Standby Pin Control Voltage Activated	$V_{STH}$		3.5	-	-	V
	Not Activated	$V_{STL}$	-	-	1.2	V

**Pin Connection Diagram**  
(Front View)



