



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





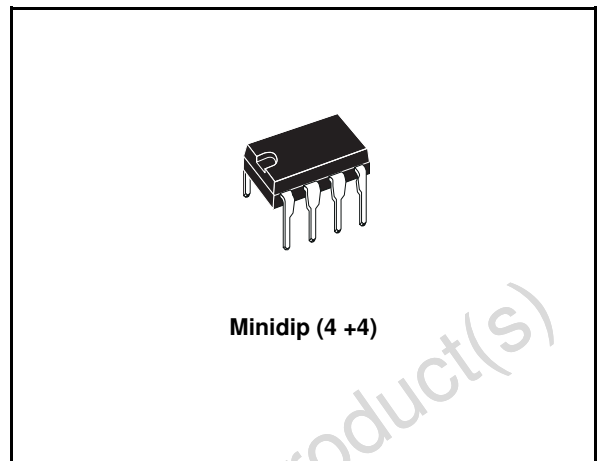
# TDA7235

## 1.6W AUDIO AMPLIFIER

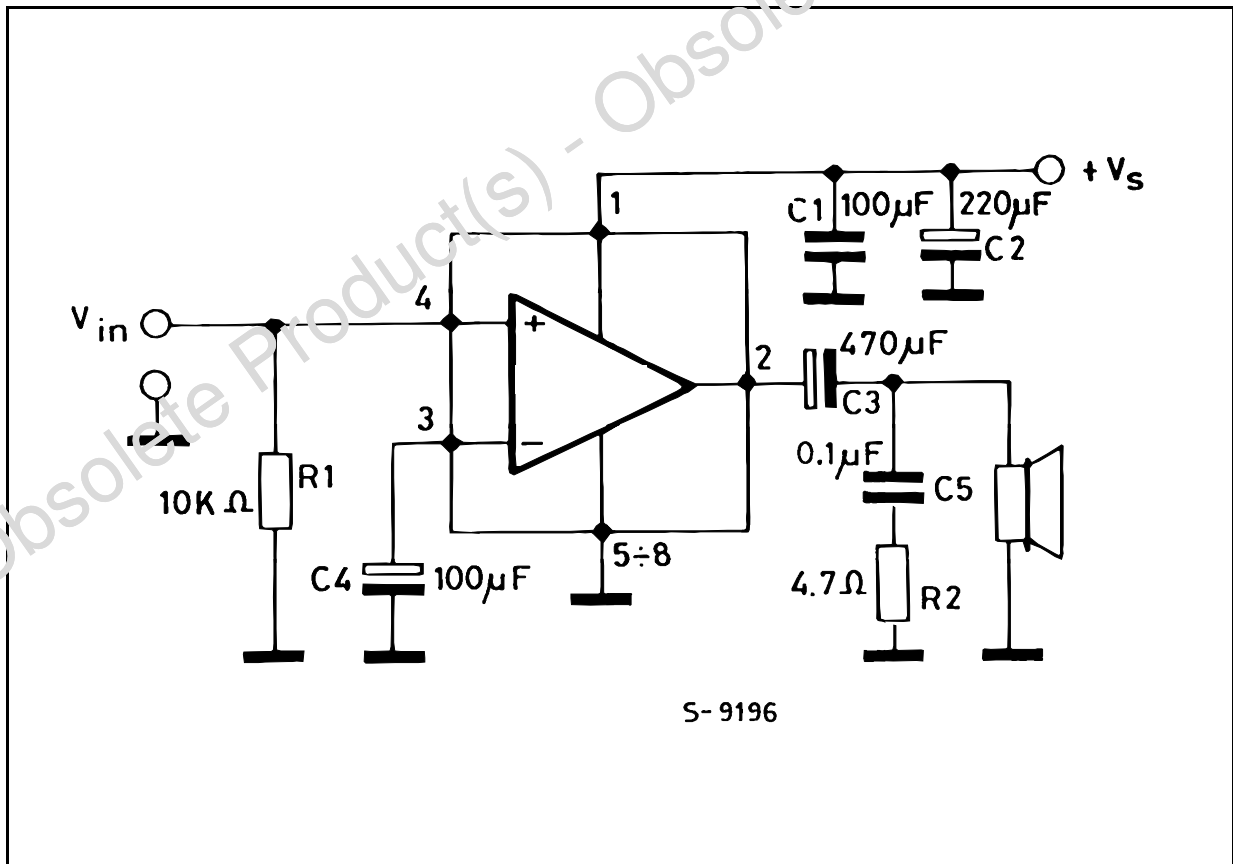
- OPERATING VOLTAGE 1.8 TO 24V
- LOW QUIESCENT CURRENT
- HIGH POWER CAPABILITY
- LOW CROSSOVER DISTORTION
- SOFT CLIPPING

### DESCRIPTION

The TDA7235 is a monolithic integrated circuit in 4 +4 lead Minidip package, intended for use as class AB power amplifier with wide range of supply voltage in portable radios, cassette recorders and players, TV sets, etc..



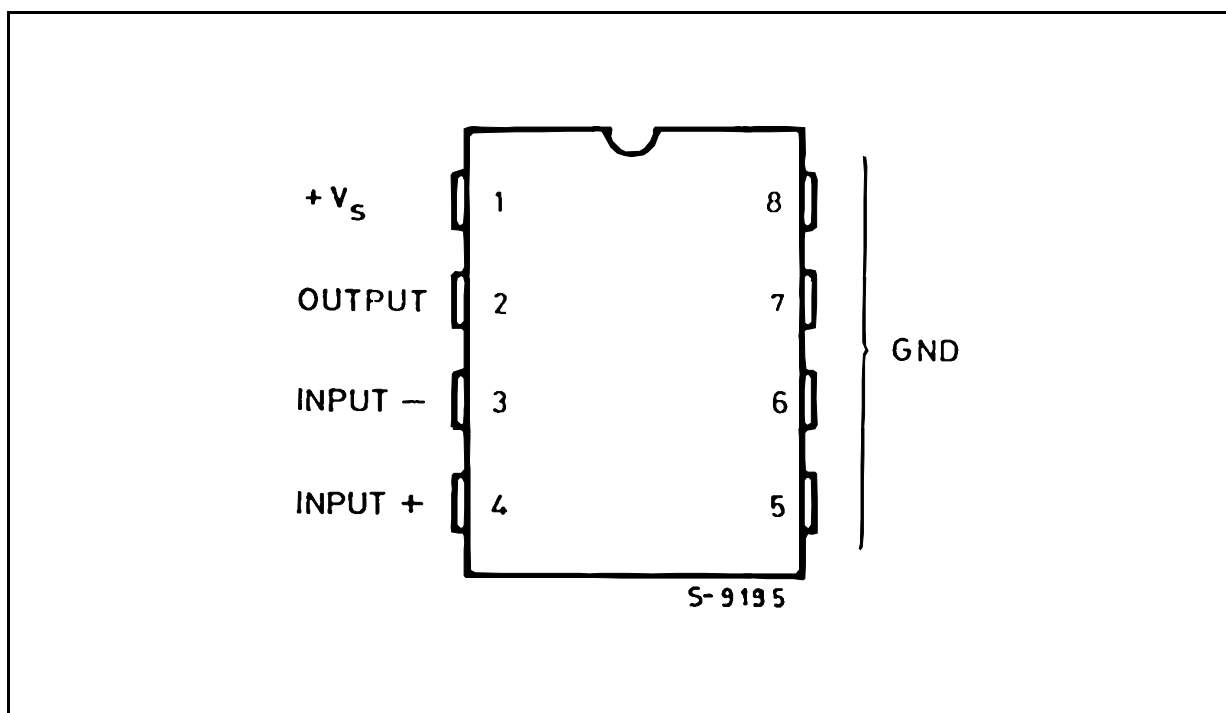
### TEST AND APPLICATION CIRCUIT



**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
$V_S$	Supply Voltage	28	V
$I_o$	Output Peak Current	1	A
$P_{tot}$	Total Power Dissipation $T_{amb} = 50^{\circ}C$ $T_{case} = 70^{\circ}C$	1.25	W
		4	W
$T_{stg}, T_j$	Storage and Junction Temperature	-40 to 150	$^{\circ}C$

**PIN CONNECTION (Top view)**



**THERMAL DATA**

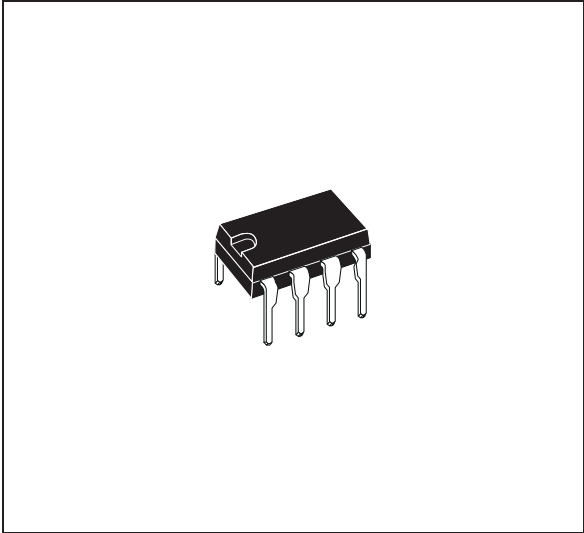
Symbol	Description	Value	Unit
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	max. 80	$^{\circ}C/W$
$R_{th\ j-case}$	Thermal Resistance Junction-pins	max. 15	$^{\circ}C/W$

**ELECTRICAL CHARACTERISTICS** ( $V_S = 12V$ ,  $T_{amb} = 25^\circ C$ ,  $f = 1KHz$ , unless otherwise specified.)

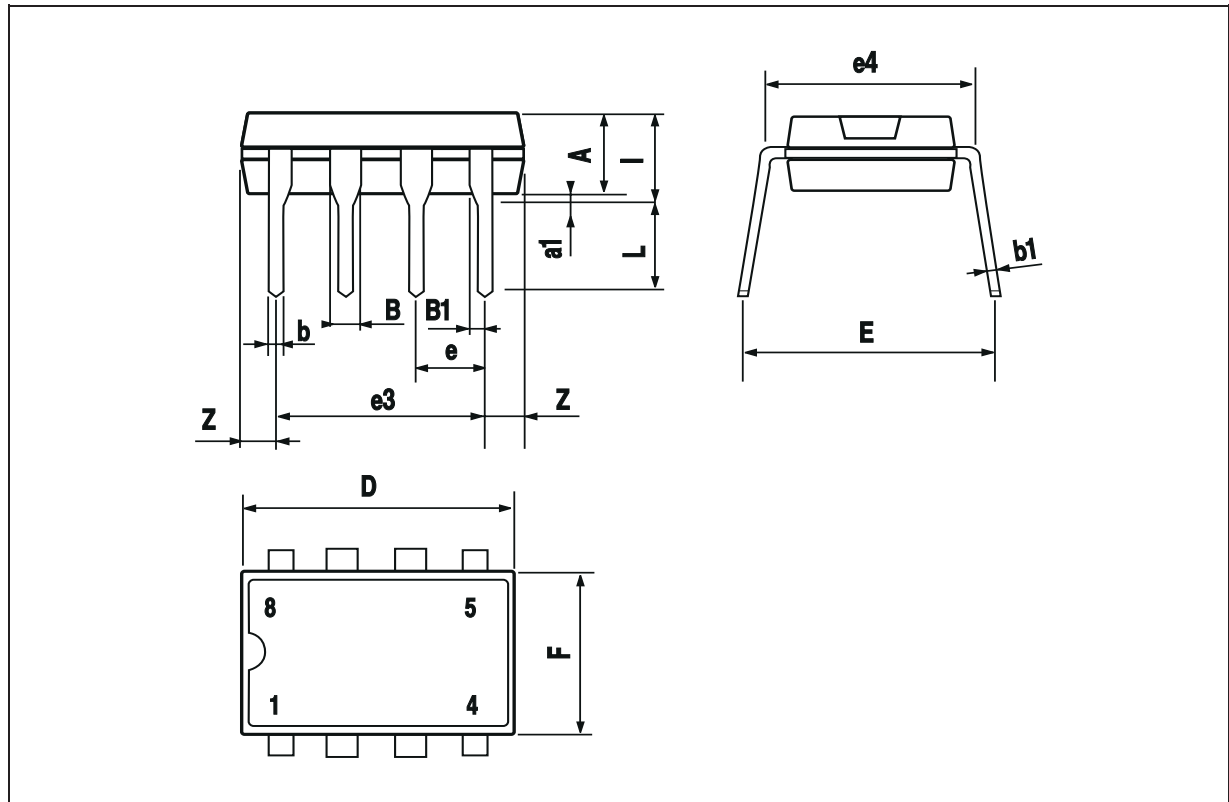
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_S$	Supply Voltage		1.8		24	V
$V_O$	Quiescent Output Voltage	$V_S = 9V$ $V_S = 12V$		4 5.5		V V
$I_d$	Quiescent Drain Current			4	10	mA
$I_b$	Input Bias Current					
$P_O$	Output Power	$d = 10\%$ $V_S = 9V \quad R_L = 4\Omega$ $V_S = 12V \quad R_L = 8\Omega$ $V_S = 15V \quad R_L = 16\Omega$ $V_S = 20V \quad R_L = 32\Omega$		1.6 1.8 1.8 1.6		W W W W
$d$	Distortion	$P_O = 0.5W \quad R_L = 8\Omega$		0.3	1	%
$G_V$	Closed Loop Voltage Gain			38		dB
$R_{in}$	Input Resistance		100			$K\Omega$
$e_N$	Total Input Noise	$R_S = 10K\Omega$ $b = \text{Curve A}$ $B = 22Hz \text{ to } 22KHz$		2 3		$\mu V$ $\mu V$
SVR	Supply Voltage Rejection	$f = 100Hz \quad R_g = 10K\Omega$	24	33		dB

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		3.3			0.130	
a1	0.7			0.028		
B	1.39		1.65	0.055		0.065
B1	0.91		1.04	0.036		0.041
b		0.5			0.020	
b1	0.38		0.5	0.015		0.020
D			9.8			0.386
E		8.8			0.346	
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			7.1			0.280
l			4.8			0.189
L		3.3			0.130	
Z	0.44		1.6	0.017		0.063

**OUTLINE AND MECHANICAL DATA**



**PowerMinidip**



Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics.  
All other names are the property of their respective owners

© 2003 STMicroelectronics - All rights reserved

**STMicroelectronics GROUP OF COMPANIES**

Australia – Belgium - Brazil - Canada - China – Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan -  
Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States

[www.st.com](http://www.st.com)

