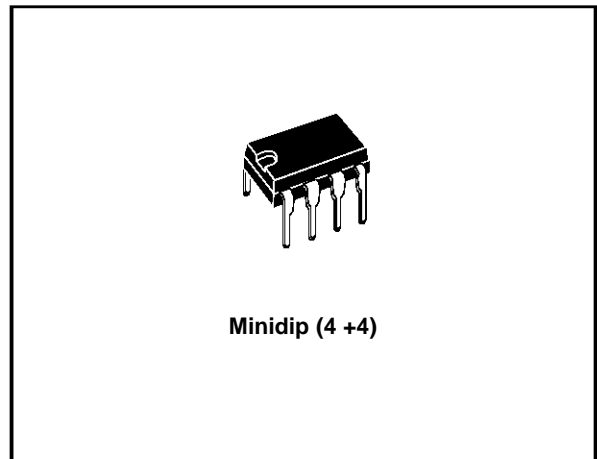


**1.6W AUDIO AMPLIFIER**

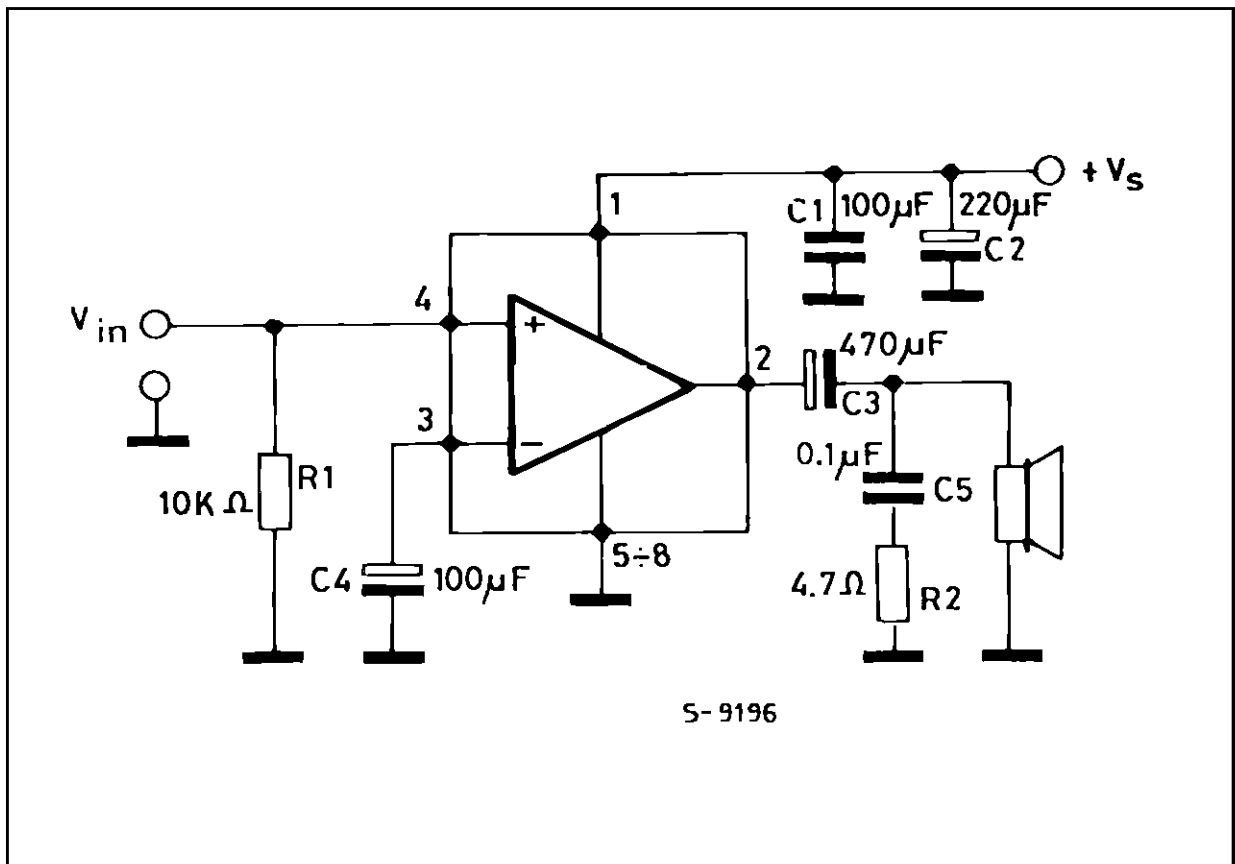
- OPERATING VOLTAGE 1.8 TO 24V
- LOW QUIESCENT CURRENT
- HIGH POWER CAPABILITY
- LOW CROSSOVER DISTORTION
- SOFT CLIPPING

**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**

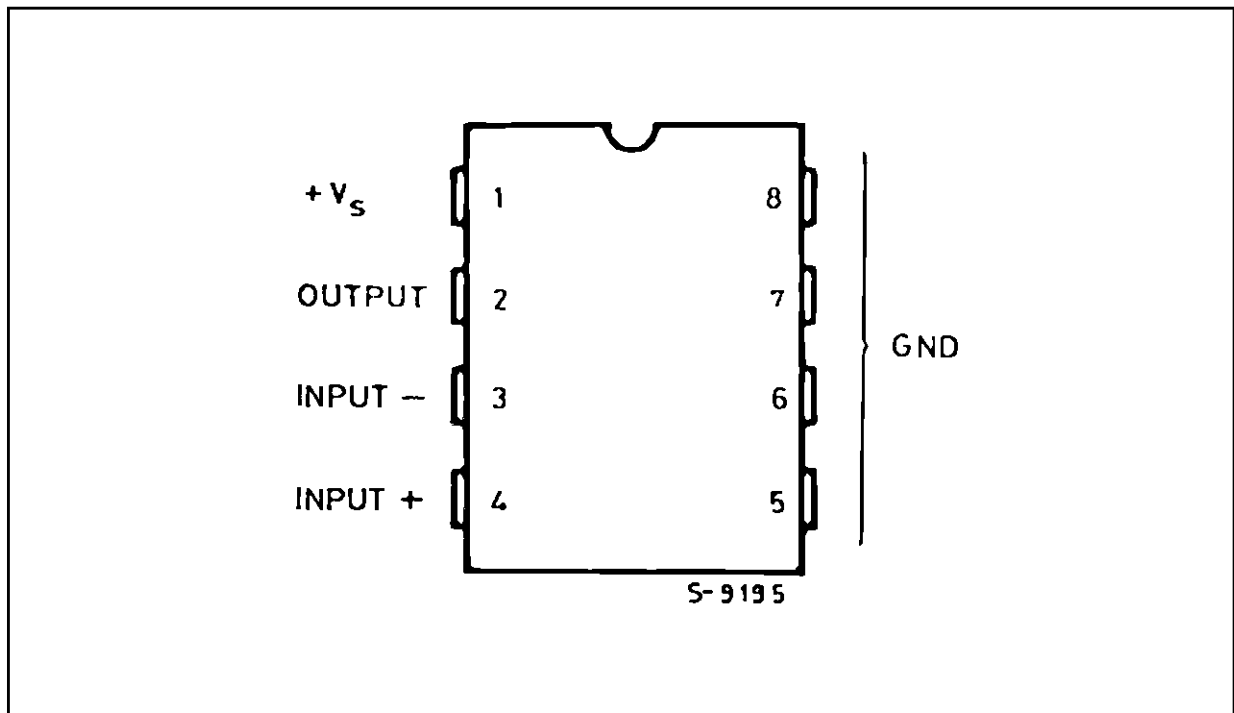


# TDA7235

## 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

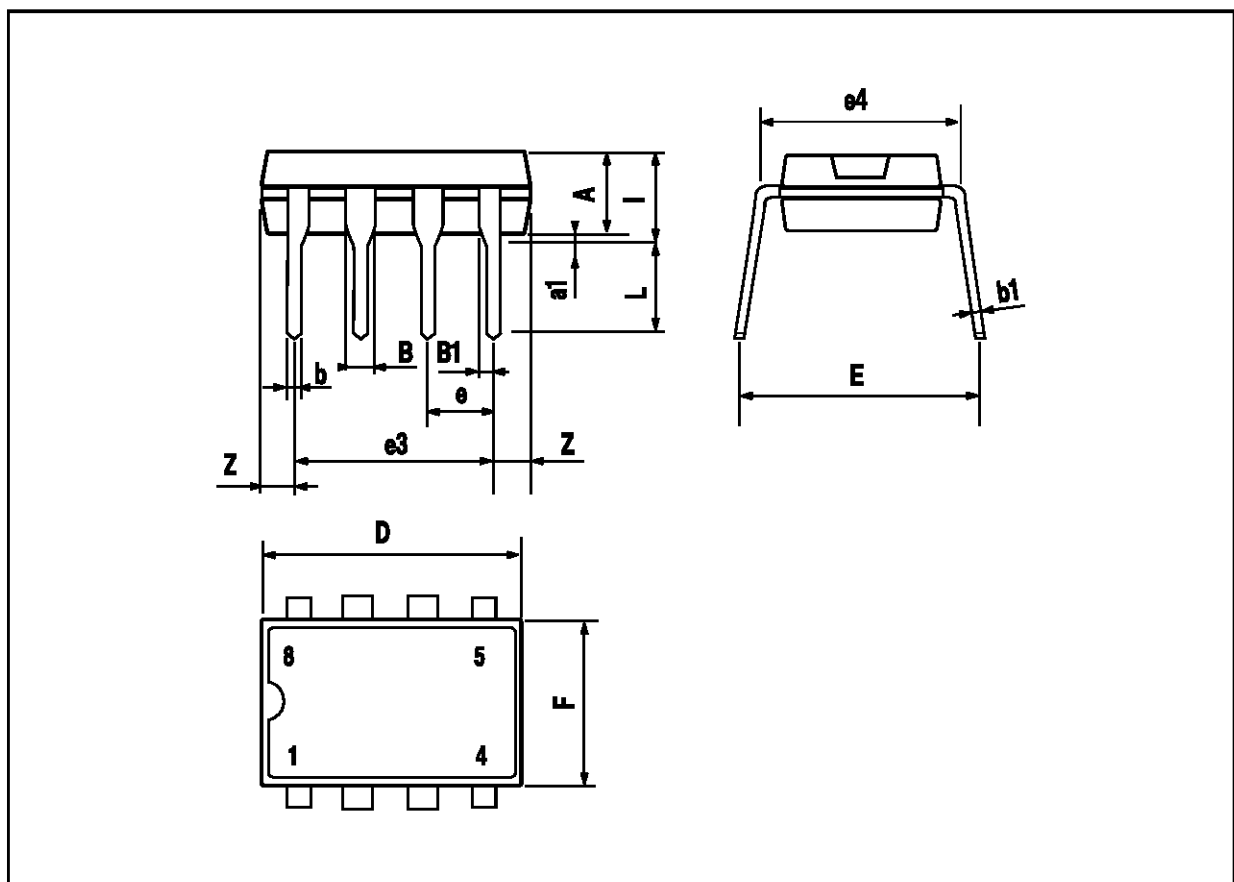
Symbol	Description	Value	Unit
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	max. 80	$^{\circ}C/W$
$R_{th\ j-case}$	Thermal Resistance Junction-pins	max. 15	$^{\circ}C/W$

**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

MINIDIP PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		3.32			0.131	
a1	0.51			0.020		
B	1.15		1.65	0.045		0.065
b	0.356		0.55	0.014		0.022
b1	0.204		0.304	0.008		0.012
D			10.92			0.430
E	7.95		9.75	0.313		0.384
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			6.6			0.260
l			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060



Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics 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 SGS-THOMSON Microelectronics. Specification mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1997 SGS-THOMSON Microelectronics – Printed in Italy – All Rights Reserved

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - Canada - China - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands - Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.