



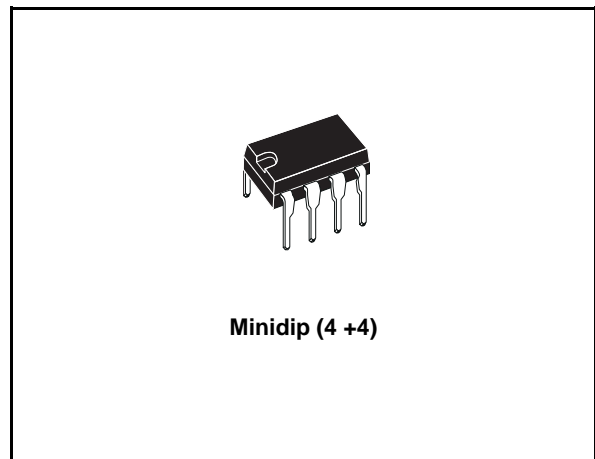
# TDA7235

## 1.6W AUDIO AMPLIFIER

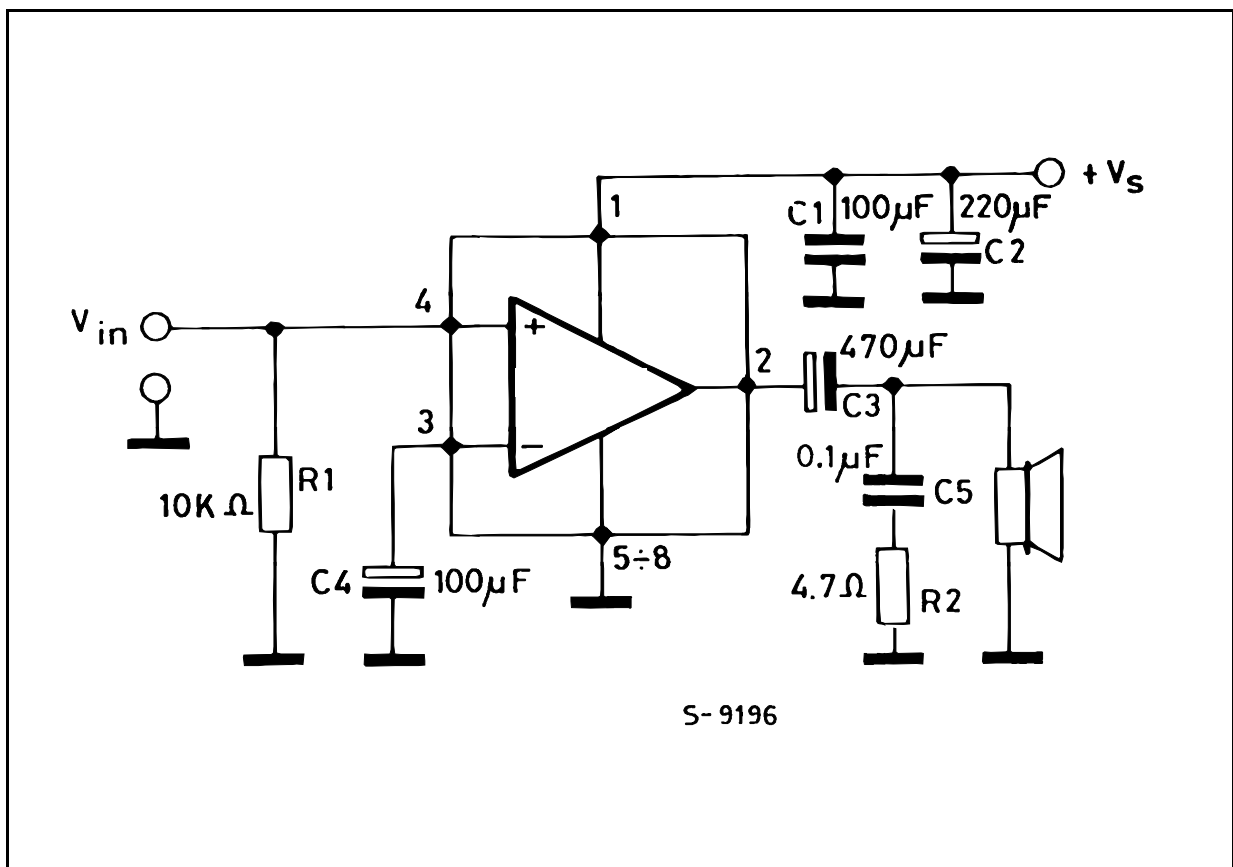
- OPERATING VOLTAGE 1.8 TO 24V
- LOW QUIESCENT CURRENT
- HIGH POWER CAPABILITY
- LOW CROSSOVER DISTORTION
- SOFT CLIPPING

### 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..



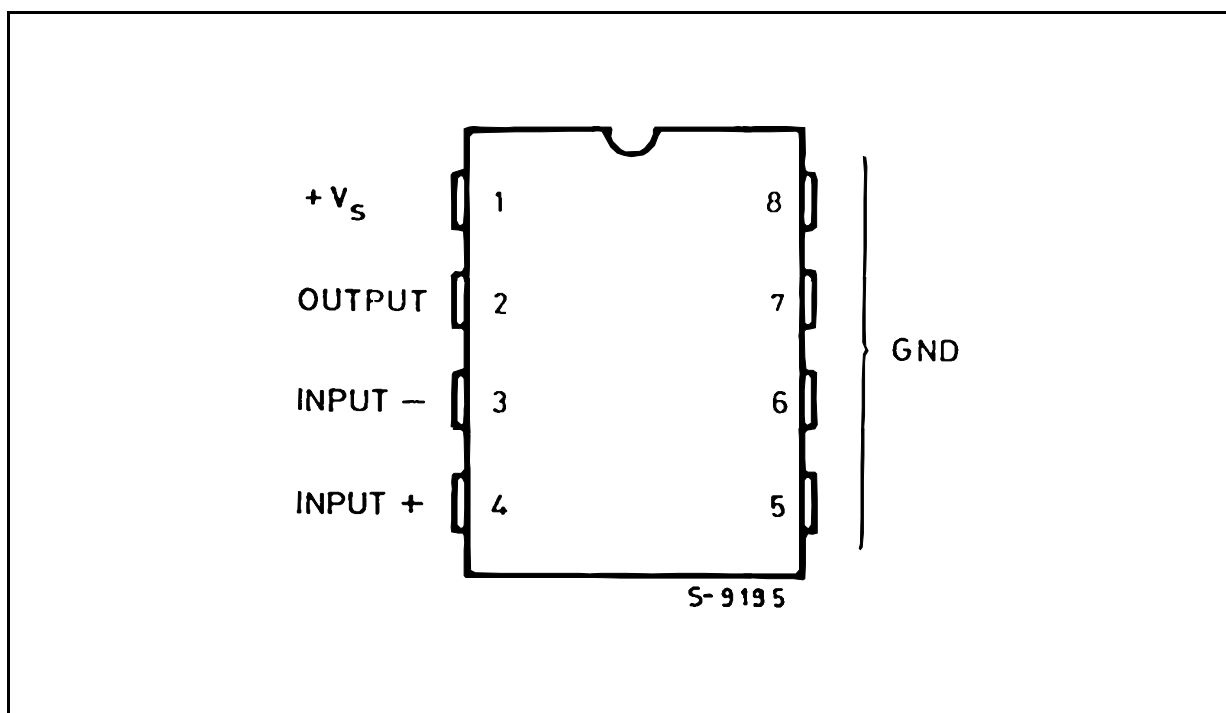
### TEST AND APPLICATION CIRCUIT



**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**

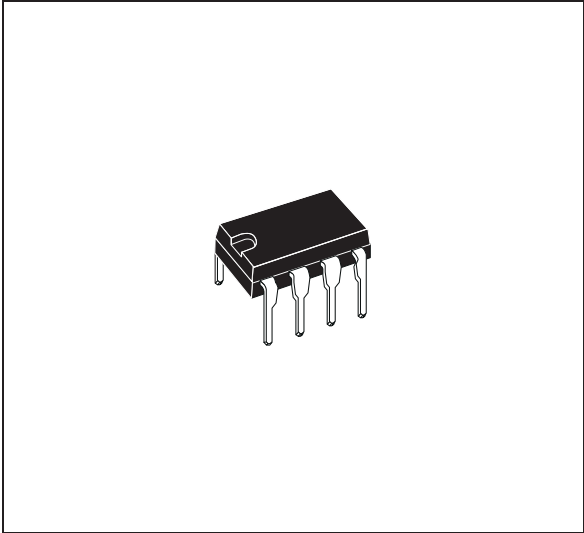
Symbol	Description	Value	Unit
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	max. 80	$^{\circ}C/W$
$R_{th\ j-case}$	Thermal Resistance Junction-pins	max. 15	$^{\circ}C/W$

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

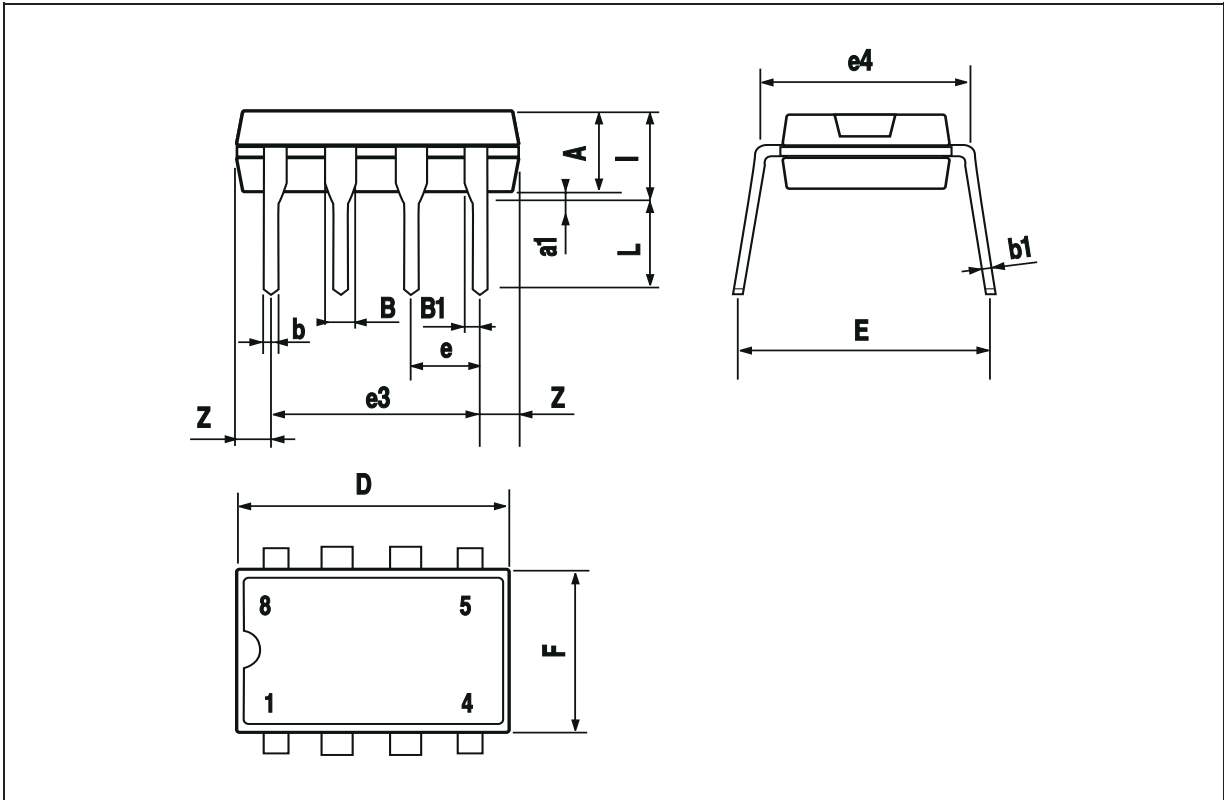
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_S$	Supply Voltage		1.8		24	V
$V_O$	Quiescent Output Voltage	$V_S = 9V$ $V_S = 12V$		4 5.5		V V
$I_d$	Quiescent Drain Current			4	10	mA
$I_b$	Input Bias Current					
$P_O$	Output Power	$d = 10\%$ $V_S = 9V \quad R_L = 4\Omega$ $V_S = 12V \quad R_L = 8\Omega$ $V_S = 15V \quad R_L = 16\Omega$ $V_S = 20V \quad R_L = 32\Omega$		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**



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