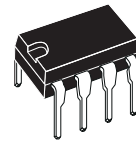


1.6W AUDIO AMPLIFIER

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

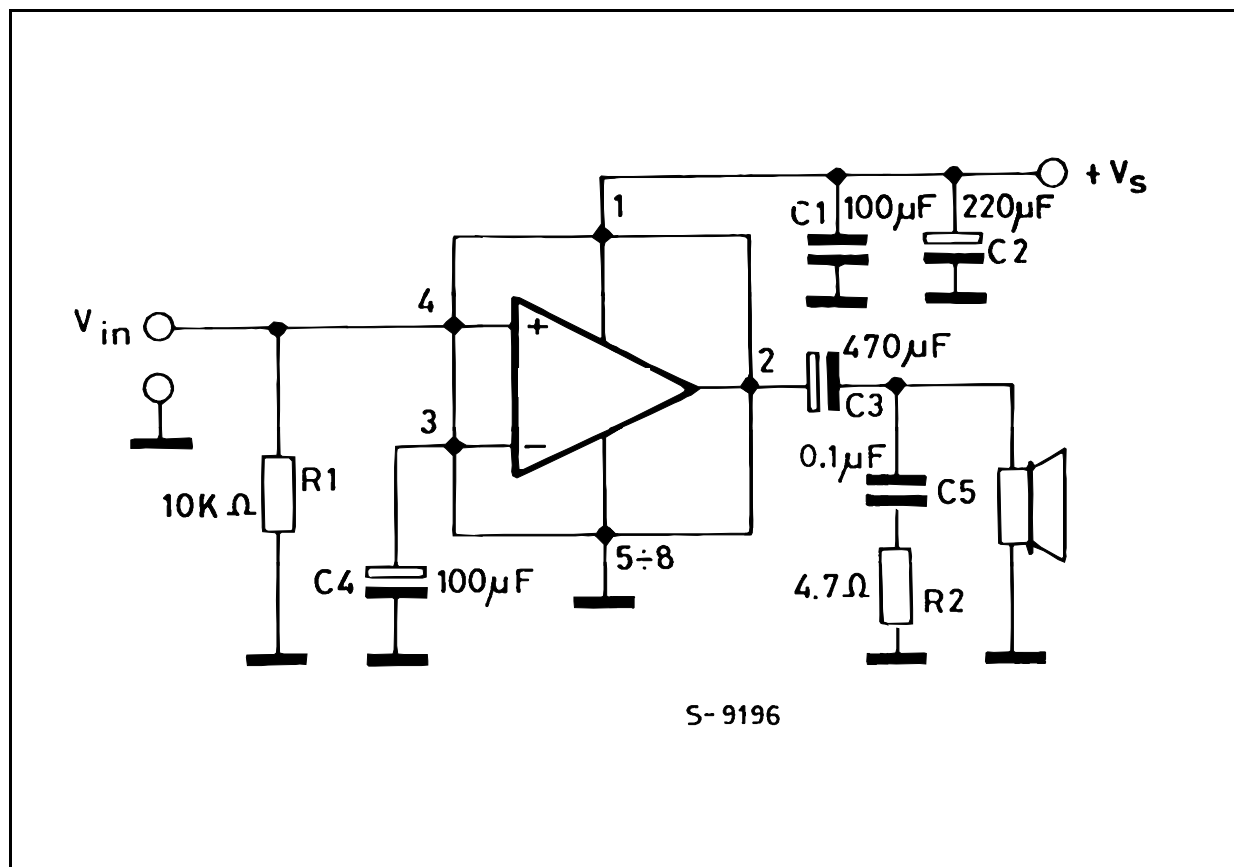
DESCRIPTION

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..



Minidip (4 +4)

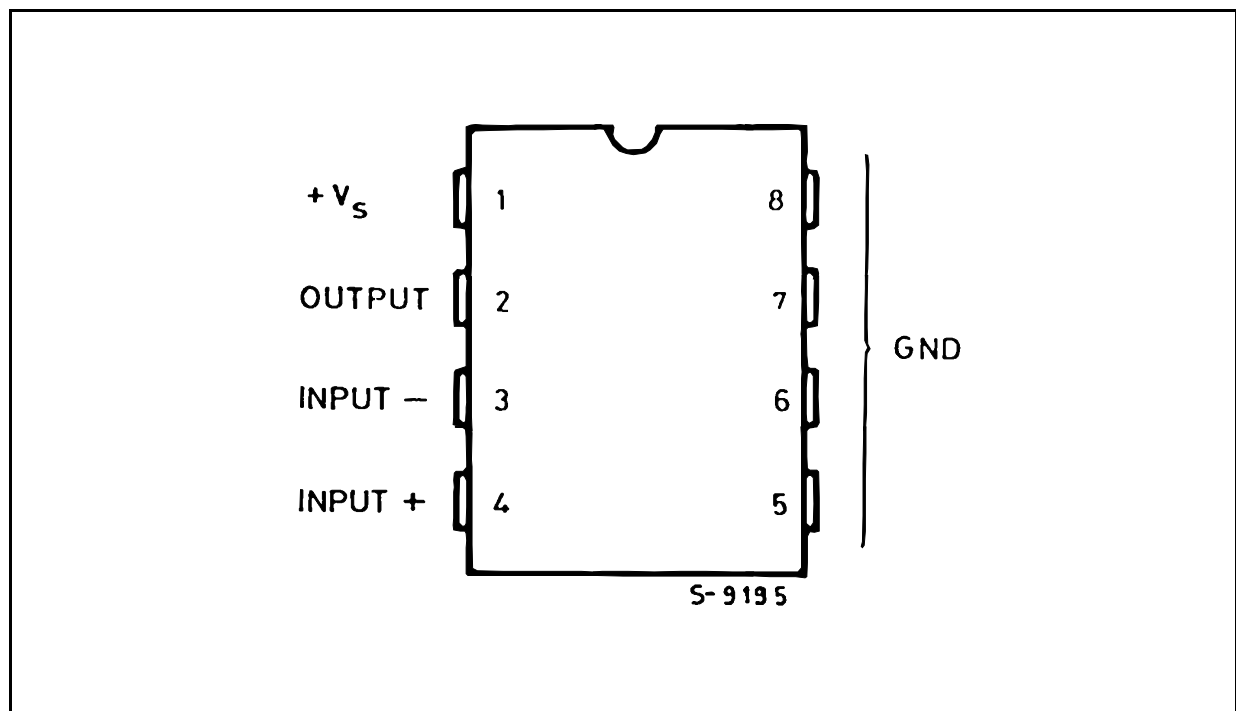
TEST AND APPLICATION CIRCUIT



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 $T_{amb} = 50^{\circ}\text{C}$ $T_{case} = 70^{\circ}\text{C}$	1.25	W
		4	W
T_{stg}, T_j	Storage and Junction Temperature	-40 to 150	$^{\circ}\text{C}$

PIN CONNECTION (Top view)



THERMAL DATA

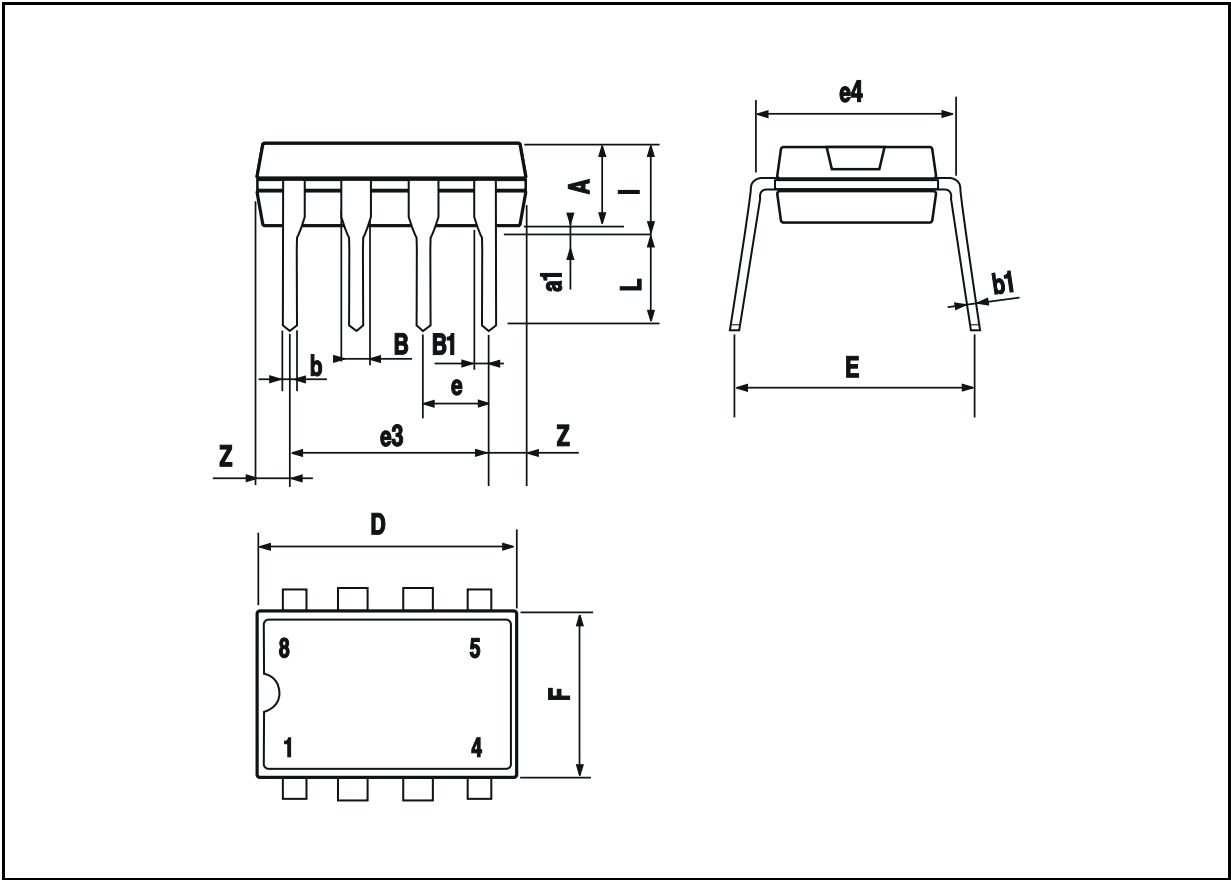
Symbol	Description	Value	Unit
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient max.	80	$^{\circ}\text{C/W}$
$R_{th\ j-case}$	Thermal Resistance Junction-pins max.	15	$^{\circ}\text{C/W}$

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		μV μV
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
I			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060



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