

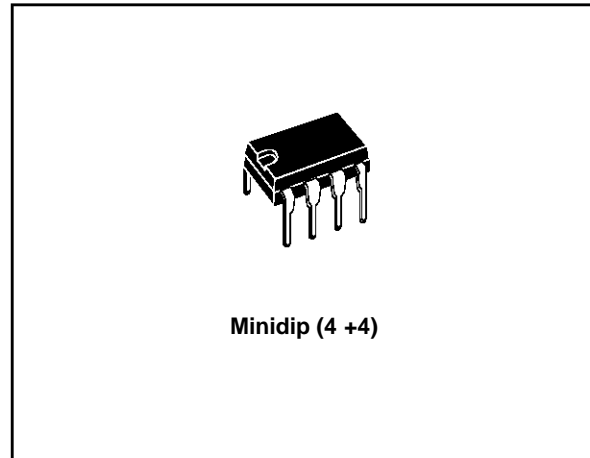
1.6W AUDIO AMPLIFIER

PRODUCT PREVIEW

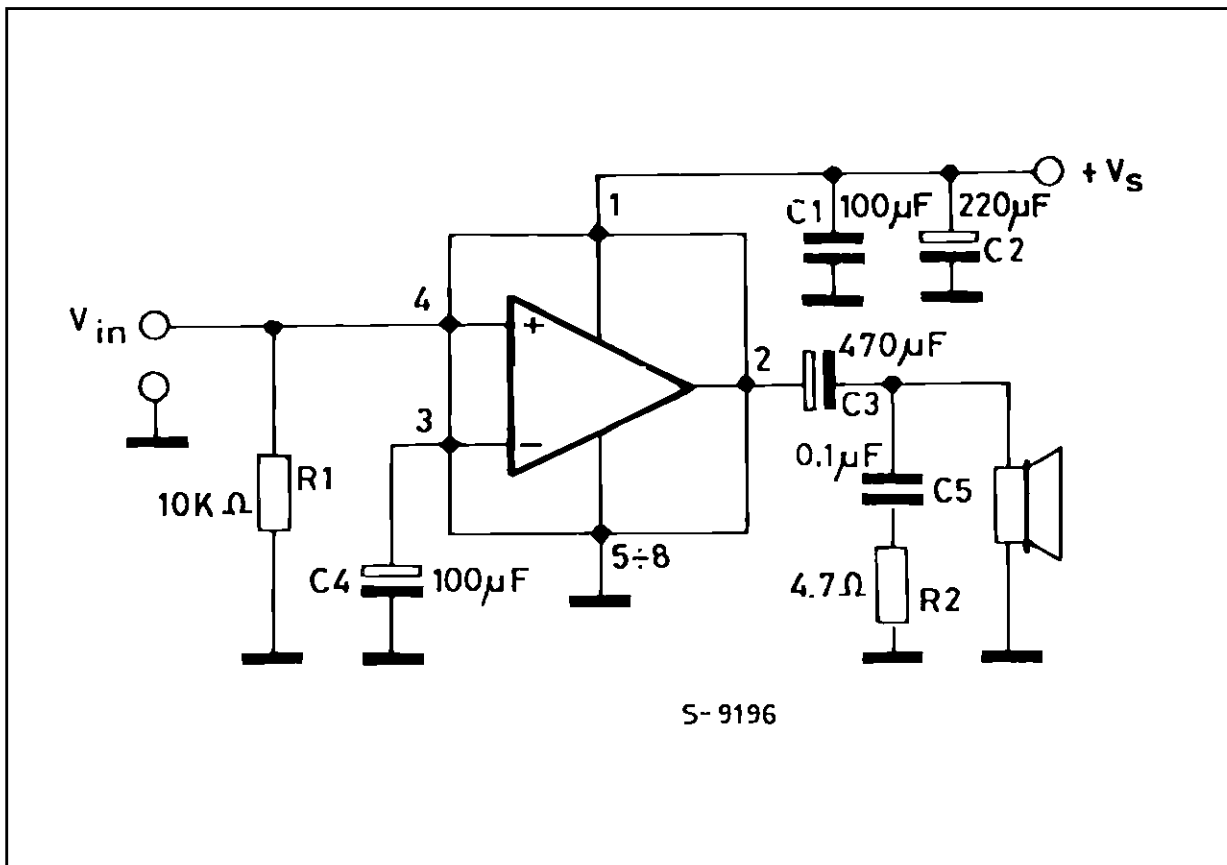
- OPERATING VOLTAGE 1.8 TO 24V
- LOW QUIESCENT CURRENT
- HIGH POWER CAPABILITY
- LOW CROSSOVER DISTORTION
- SOFT CLIPPING

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

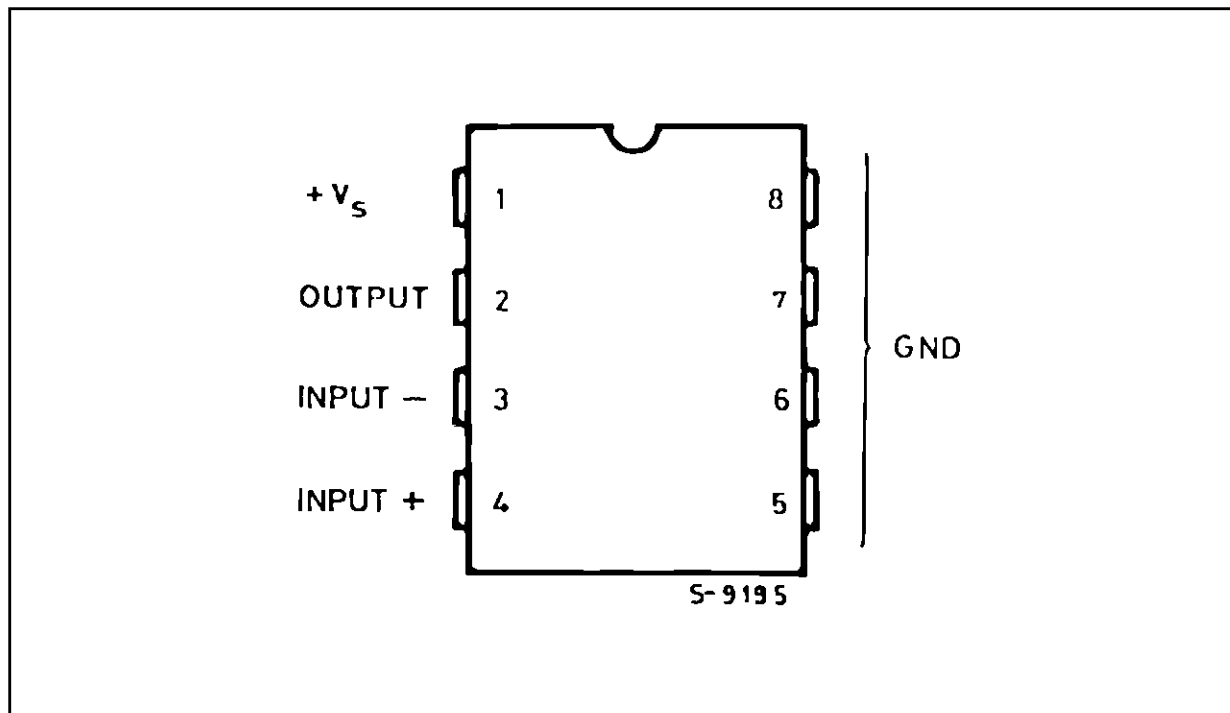


TDA7235

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 $T_{amb} = 50^{\circ}\text{C}$ $T_{case} = 70^{\circ}\text{C}$	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

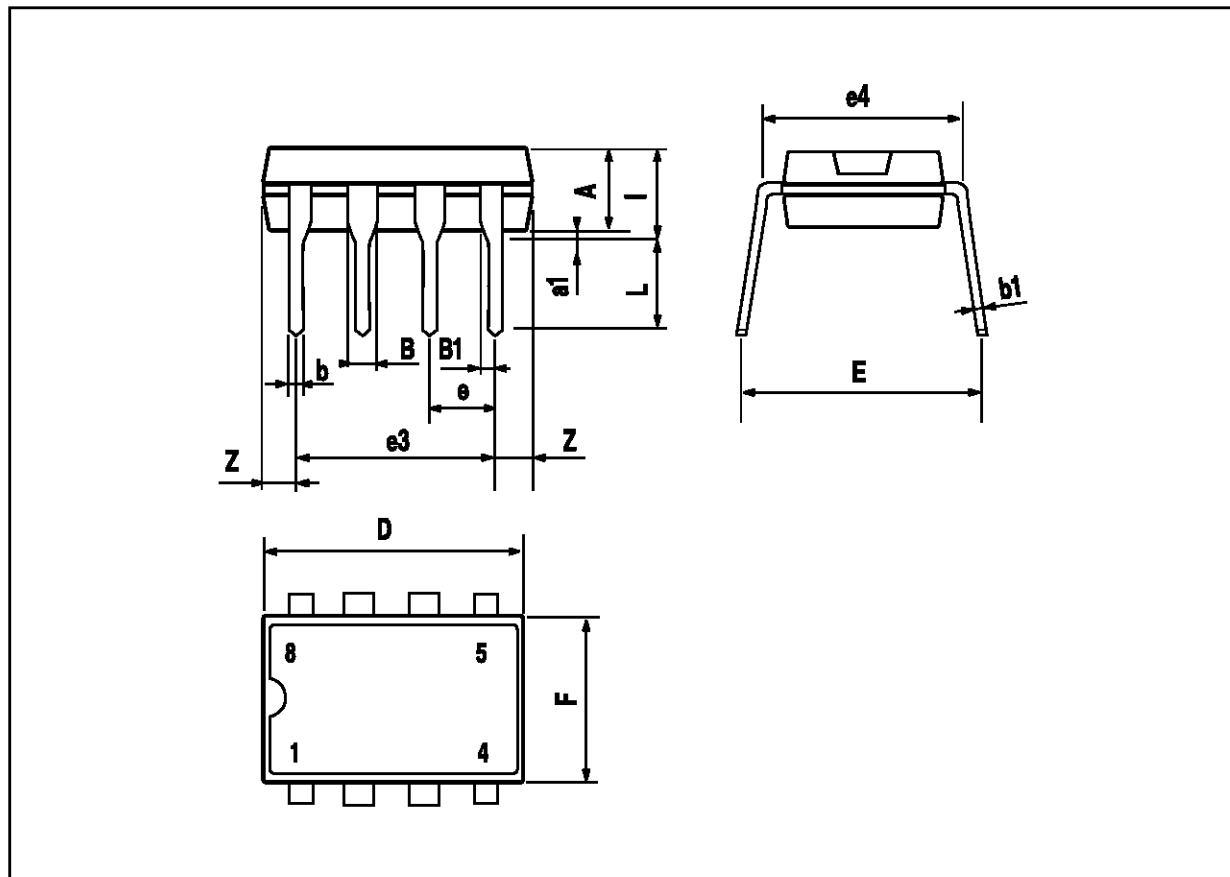
Symbol	Description	Value	Unit
$R_{th\ j-amb}$	Thermal Resistance Junction-ambient	max. 80	$^{\circ}\text{C}/\text{W}$
$R_{th\ j-case}$	Thermal Resistance Junction-pins	max. 15	$^{\circ}\text{C}/\text{W}$

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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