

TDA7267A

3W MONO AMPLIFIER

- CAN DELIVER 3W THD 10% 14.5V/8Ω
- INTERNAL FIXED GAIN 32dB
- NO FEEDBACK CAPACITOR
- NO BOUCHEROT CELL
- THERMAL PROTECTION
- AC SHORT CIRCUIT PROTECTION
- SVR CAPACITOR FOR BETTER RIPPLE REJECTION
- LOW TURN-ON/OFF POP
- STAND-BY MODE

DESCRIPTION

The device TDA7267A is a new technology Mono Audio Amplifier in PowerDIP package specifically designed for TV application.

Thanks to the fully complementary output configu-

BLOCK DIAGRAM



ration the device delivers a rail to rail voltage swing without need of boostrap capacitors.



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ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
Vs	Operating Supply Voltage	18	V
lo	Output Put Peak Current	1.5	А
T _{op}	Operating Temperature Range	0 to 70	°C
Тj	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-40 to 125	°C

PIN CONNECTION (Top view)



Rth with "on Board" Square Heat Sink vs. Copper Area

Example of heatsink using PC board copper





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THERMAL DATA

Symbol	Parameter	Value	Unit
R _{th j-amb}	Thermal Resistance Junction to ambient	70	°C/W
R _{th j-case}	Thermal Resistance Junction to case	15	°C/W

ELECTRICAL CHARACTERISTICS (T_{amb} = 25°C; V_S = 14.5V; R_L = 8 Ω ; f = 1KHz; unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Unit
Vs	Supply Voltage Range		5		18	V
ls	Quiescent Current			23	35	mA
I _{sb}	Stand-By Current	Pin 3 shorted to GND			0.3	mA
Vo	Quiescent Output Voltage			7.5		V
Av	Voltage Gain		31		33	dB
R _{IN}	Input Impedance		50	100		KΩ
Po	Output Power	THD = 10%	2.7	3		W
THD	Distortion	$P_0 = 1W$		0.1	0.3	%
SVR	Supply Voltage Rejection	V _{ripple} = 150mVrms; F _{ripple} = 1KHz		50		dB
E	Input Noise Voltage	Rg = $10K\Omega$; BW = $20Hz$ to $20KHz$		5	10	μV
V _{sb}	Stand-By Enable Voltage				1	V

Figure 1. Application Circuit



APPLICATION HINTS:

For 14.5V supply and 8Ω speaker application, its maximum power dissipation is about 1.8W.

Assumming that max ambient temperature is 70°C, the required thermal resistance of the device mounted on the PCB with a dissipating area

must be equal to: (150 - 70)/1.8 = 44.4°C/W.

Junction to pin thermal resistance of the package is about 15° C/W. That means external heat sink of about 30° C/W is required.

Cu ground plane of PCB can be used as heat dissipating means.



Figure 2. PCB And Components Layout Of The Application Circuit of Figure 1

Components C2 and C6 must be ignored.



Figure 3. Distortion vs Output Power

Remark: all the characterization curves refer to the electrical test conditions.

Figure 4. Distortion vs Output Power

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Figure 5. Distortion vs Output Power















Figure 8. Quiescent current vs Supply Voltage



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DIM.	mm			inch			
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
a1	0.51			0.020			
В	0.77		1.65	0.030		0.065	
b		0.5			0.020		
b1		0.25			0.010		
D			20			0.787	
E		8.5			0.335		
е		2.54			0.100		
e3		17.78			0.700		
F			7.1			0.280	
I			5.1			0.201	
L		3.3			0.130		
Z			1.27			0.050	

POWERDIP 8+8 PACKAGE MECHANICAL DATA



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