## **AN5265**

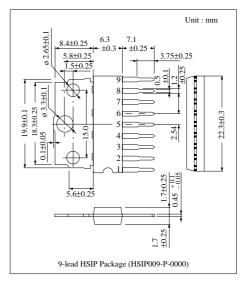
## TV Sound Output Circuit

#### ■ Overview

The AN5265 is a semiconductor integrated circuit designed for TV sound output circuit.

#### ■ Features

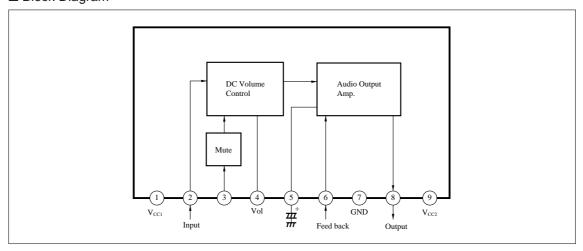
- DC volume adjustment method employed. Controlled with DC voltage.
- Fin-attached 9-lead SIP package employed



### ■ Pin Descriptions

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Pin No.	Pin Description					
1	Supply Voltage 1					
2	Sound Input					
3	Mute					
4	Volume adjustment					
5	Filter					
6	Feedback					
7	GND					
8	Sound output					
9	Supply voltage 2					

## ■ Block Diagram

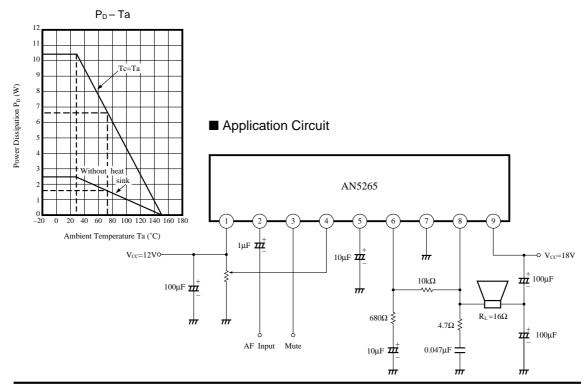


### ■ Absolute Maximum Ratings (Ta= 25°C)

Parameter		Symbol	Rating		Unit	
Voltage	Supply Voltage	$V_{1-7}$	14.4		V	
		V <sub>9-7</sub>	26		V	
	Circuit Voltage	V <sub>3-7</sub>	0	7	V	
		V <sub>4-7</sub>	0	V <sub>1-7</sub>	V	
		V <sub>6-7</sub>	0	V <sub>9-7</sub>	V	
Current	Circuit Current	$I_4$	-10	3	mA <sub>(peak)</sub>	
		$I_8$	-1.2	1.2	A (peak)	
Power Dissipation		$P_D$	1.6		W	
Operating Ambient Temperature		$T_{ m opr}$	- 20 ~ + 70		°C	
Storage Temperature		$T_{ m stg}$	<i>−</i> 55 ~ + 150		°C	

## ■ Electrical Characteristics (Ta= 25°C)

Parameter	Symbol	Condition	min.	typ.	max.	Unit
Circuit Current	$I_1$	Pin1= Pin4 = 12V, Pin7= 0V, Pin9 = 18V	7.1	9.5	11.9	mA
Circuit Voltage	V <sub>2-7</sub>	Pin1= 12V, Pin4 = Pin7= 0V, Pin9 = 18V		5.4		V
Circuit Voltage	V <sub>5-7</sub>	Pin1= 12V, Pin4 = Pin7= 0V, Pin9 = 18V		8.5		V
Circuit Voltage	V <sub>6-7</sub>	Pin1= 12V, Pin4 = Pin7= 0V, Pin9 = 18V		8.8		V
Circuit Voltage	V <sub>8-7</sub>	Pin1= 12V, Pinr= Pin4= 0V, Pin9=18V, Pin6-8: $10$ kΩ		8.8		V
Max. Output Power	Po <sub>max</sub> .	$f=1kHz, THD=10\%, V_4=12V, R_L=16\Omega$	2.0	2.3		W
Voltage Gain	Gv	f= 1kHz, V <sub>i</sub> = 0.1Vrms, V <sub>4</sub> = 12V	28.5	30.5	32.5	dB
Total Harmonics Distortion	THD	$f = 1kHz, P_0 = 1W, V_4 = 12V$		0.8	1.2	%
Max. Attenuation Amount	A <sub>tt</sub>	f= 1kHz, V <sub>i</sub> = 0.1Vrms, V <sub>4</sub> = Ratio between 12 and 0 V		-95	-85	dB
Output Noise Voltage	V <sub>no</sub>	V <sub>i</sub> = 0Vrms, V <sub>4</sub> = 0V		0.6	1.0	mVrms
Muting Operation Voltage	V <sub>3-7</sub>	f= 1kHz, V <sub>4</sub> = 12V, V <sub>8</sub> = 0Vrms	2.45	2.65	2.85	V



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