AN5265

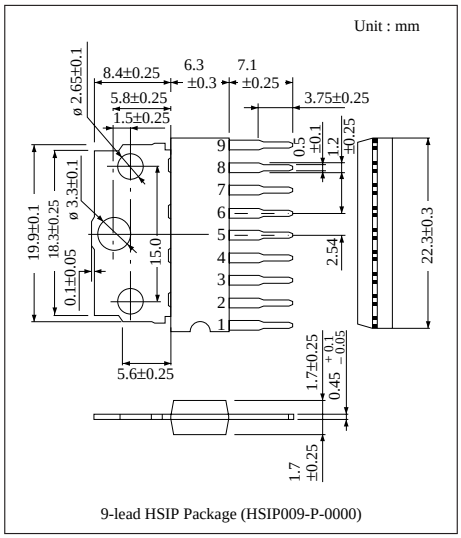
TV Sound Output Circuit

■ Overview

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

■ Features

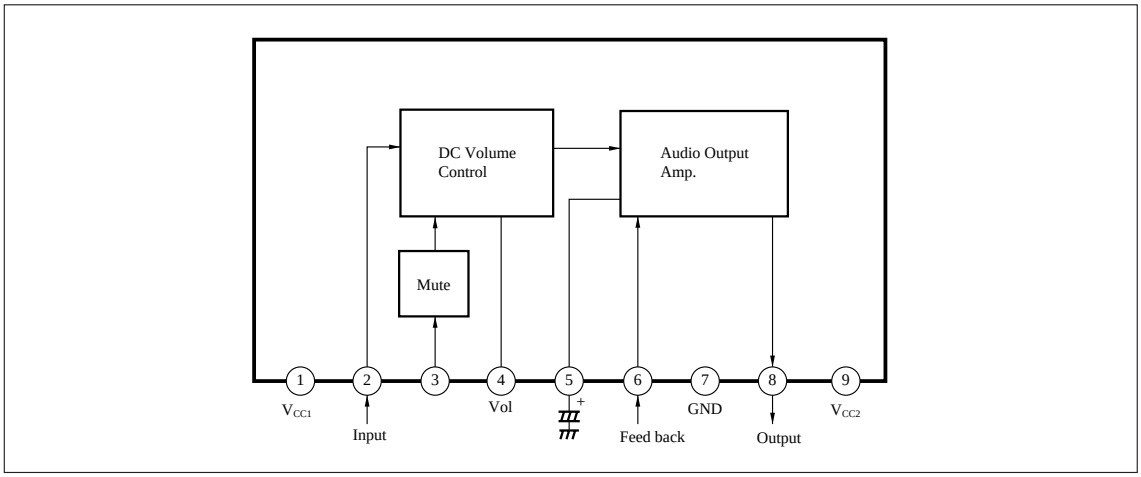
- DC volume adjustment method employed. Controlled with DC voltage.
- Fin-attached 9-lead SIP package employed



■ Pin Descriptions

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



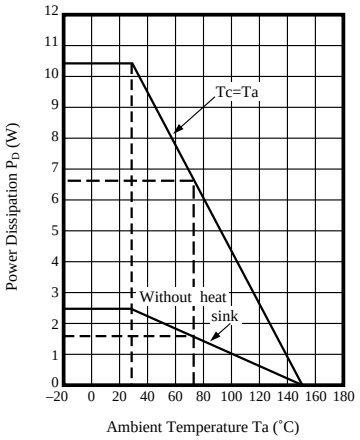
■ Absolute Maximum Ratings (Ta= 25˚C)

Parameter		Symbol	Rating		Unit
Voltage	Supply Voltage	V_{1-7}	14.4		V
		V_{9-7}	26		V
	Circuit Voltage	V_{3-7}	0	7	V
		V_{4-7}	0	V_{1-7}	V
		V_{6-7}	0	V_{9-7}	V
Current	Circuit Current	I_4	–10	3	$mA_{(peak)}$
		I_8	–1.2	1.2	$A_{(peak)}$
Power Dissipation		P_D	1.6		W
Operating Ambient Temperature		T_{opr}	– 20 ~ + 70		˚C
Storage Temperature		T_{stg}	– 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_{2-7}	Pin1= 12V, Pin4 = Pin7= 0V, Pin9 = 18V	—	5.4	—	V
Circuit Voltage	V_{5-7}	Pin1= 12V, Pin4 = Pin7= 0V, Pin9 = 18V	—	8.5	—	V
Circuit Voltage	V_{6-7}	Pin1= 12V, Pin4 = Pin7= 0V, Pin9 = 18V	—	8.8	—	V
Circuit Voltage	V_{8-7}	Pin1= 12V, Pinr= Pin4 = 0V, Pin9 = 18V, Pin6 – 8 : 10kΩ	—	8.8	—	V
Max. Output Power	$Po_{max.}$	f= 1kHz, THD= 10%, V_4= 12V, R_L= 16Ω	2.0	2.3	—	W
Voltage Gain	G_V	f= 1kHz, V_i= 0.1Vrms, V_4= 12V	28.5	30.5	32.5	dB
Total Harmonics Distortion	THD	f= 1kHz, P_O= 1W, V_4= 12V	—	0.8	1.2	%
Max. Attenuation Amount	A_{tt}	f= 1kHz, V_i= 0.1Vrms, V_4= Ratio between 12 and 0 V	—	–95	–85	dB
Output Noise Voltage	V_{no}	V_i= 0Vrms, V_4= 0V	—	0.6	1.0	mVrms
Muting Operation Voltage	V_{3-7}	f= 1kHz, V_4= 12V, V_8= 0Vrms	2.45	2.65	2.85	V

P_D – Ta



■ Application Circuit