

AN5260

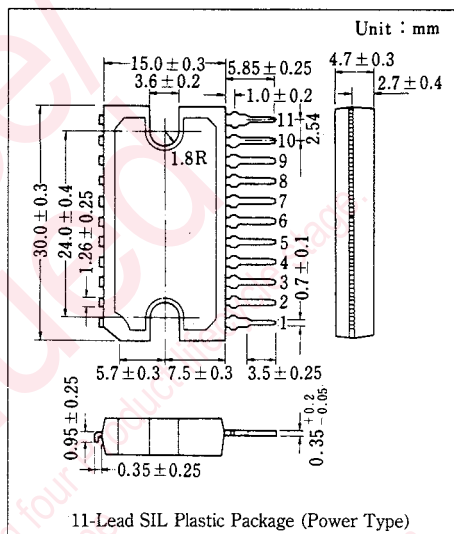
TV Sound Output Circuit

Outline

The AN5260 is an integrated circuit designed for TV sound output circuit.

Features

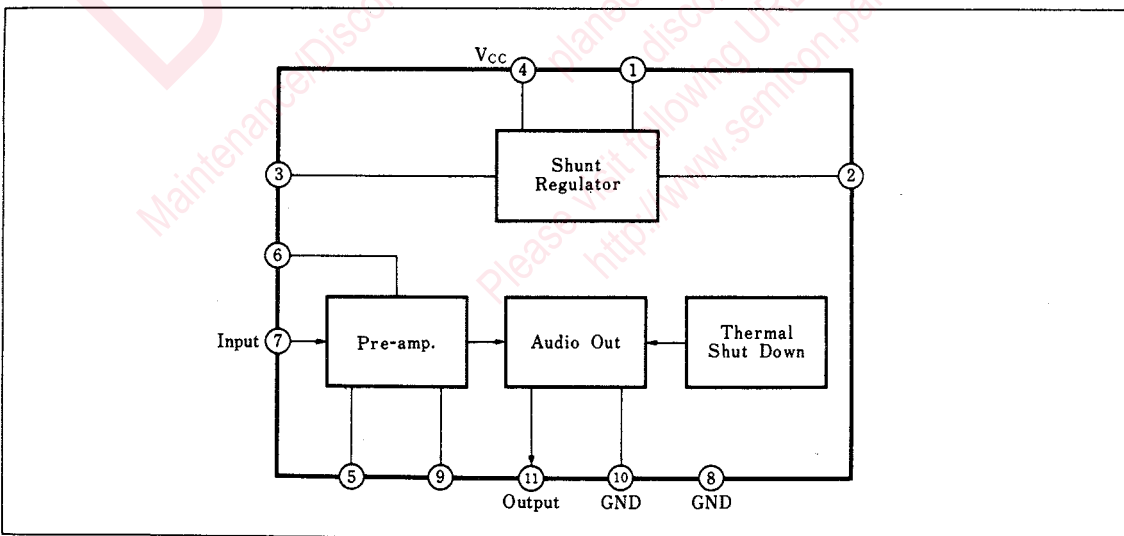
- Built-in shunt regulator
- Low distortion and maximum 6.6W power output
- 24V supply operation
- Compact 11-lead single in-line plastic package



Pin

Pin No.	Pin Name	Pin No.	Pin Name
1	Shunt Regulator	7	Sound Input
2	Shunt Current	8	GND
3	Filter	9	Phase Compensation (2)
4	V _{cc}	10	GND
5	Phase Compensation (1)	11	Sound Output
6	Filter	—	—

Block Diagram



■ Absolute Maximum Ratings (Ta=25°C)

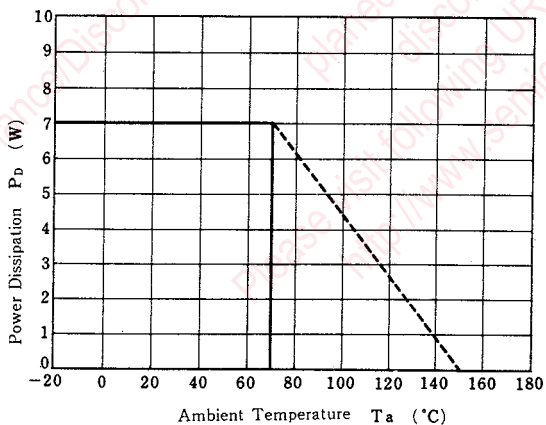
Item		Symbol	Rating		Unit
Voltage	Supply Voltage	$V_{4-8,10}$	26.4		V
	Circuit Voltage	$V_{1-8,10}$	0	26.4	V
Current	Circuit Current	I_2	0	3	A
		I_{11}	3	3	A
Power Dissipation (Ta=70°C)		P_D	7.0		W
Temperature	Operating Ambient Temperature	T_{opr}	-20~+70		°C
	Storage Temperature	T_{stg}	-55~+150		°C

Note: ⊕ and ⊖ are flow-in and flow-out currents to/from the circuit, respectively.

■ Electrical Characteristics (Ta=25°C)

Item	Symbol	Test Circuit	Condition	min.	typ.	max.	Unit
Total Circuit Current	I_{tot}	1		50	61	72	mA
Current Voltage	$V_{1-8(10)}$	1		20.8	21.4	22.0	V
	$V_{7-8(10)}$	2		0.9	1.4	2.0	V
Circuit Voltage (Center Voltage)	$V_{11-8(10)}$	2	$V_{1-8(10)}=24V$	10.8	11.8	12.8	V
Circuit Voltage (I_{cQ} measured)	V_{10-8}	2	$V_{1-8(10)}=24V$	60	220	350	mV
Voltage Gain	G_v	3	$f=1kHz, V_i=30mV_{rms}(Pin\textcircled{7})$	37	39	41	dB
Output Power (max.)	P_o	3	$f=1kHz, THD=10\%$	6.0	6.6		W
Total Harmonic Distortion	THD	3	$f=1kHz, P_o=3W$		0.6	1.7	%
Output Noise Voltage	V_{no}	3	Connected to AF input terminal with 10kΩ		2	10	mV _{rms}
Output Voltage (HAM)	$V_{O(HAM)}$	3	$f=60Hz, V_i=0.3V_{rms}$			50	mV _{rms}
Current Change	ΔI_i	3	$V_i=0V, V_i=100mV_{rms}$	0	12	30	mA
Frequency Band Width	B	3	-3dB point, $V_i=30mV_{rms}$	100	350		kHz

$P_D - T_a$



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