



SANYO Semiconductors

DATA SHEET

LA4285 — Monolithic Linear IC Audio Output for TV application 3W Monaural Power Amplifier

Overview

The LA4285 is a 3W monaural power amplifier IC.

The LA4285 features a built-in electronic volume control circuit and only requires a minimal number of external components and thus is optimal for use as the audio output power amplifier in TV sets.

Functions

- 3W monaural power amplifier ($V_{CC} = 16V$, $R_L = 8\Omega$)
- Electronic volume control circuit
- Input selector switch

Specifications

Maximum Ratings at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC\ max}$	$R_g = 0$ (No signal)	24	V
Allowable power dissipation	$P_d\ max$	With a infinity large heat sink	7.0	W
Thermal resistance	θ_{j-c}		10.0	$^\circ C/W$
Operating temperature	T_{opr}		-20 to +75	$^\circ C$
Storage temperature	T_{stg}		-40 to +150	$^\circ C$

Operating Conditions at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings	Unit
Recommended supply voltage	V_{CC}		16	V
Recommended load resistance	R_L		8	Ω

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LA4285

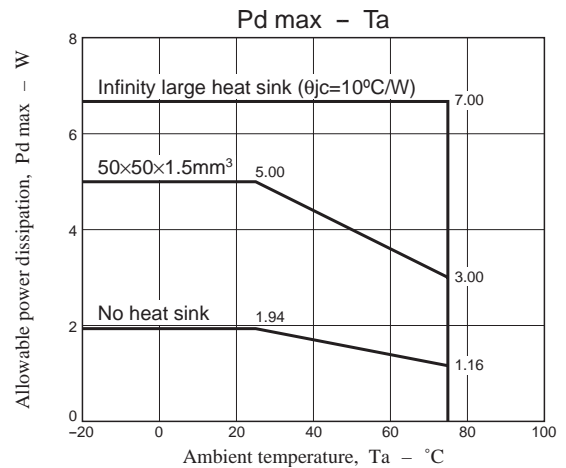
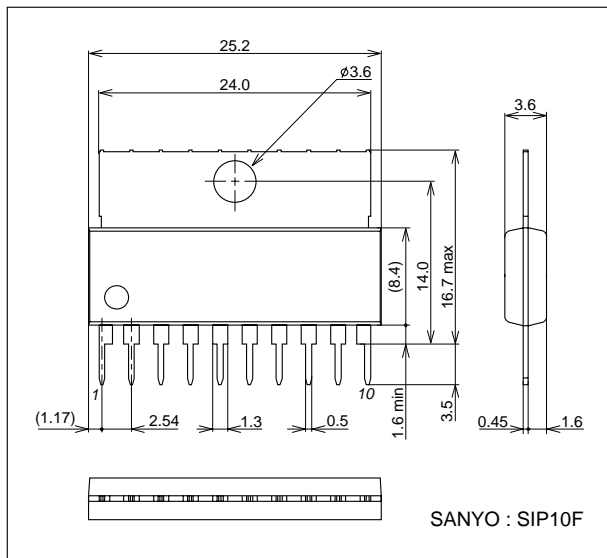
Electrical Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = 16\text{V}$, $R_L = 8\Omega$, $f = 1\text{kHz}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Quiescent current	I_{CCO}	$R_g = 0, V_5 = 0\text{V}$	18	35	70	mA
Voltage gain	VG	$V_O = 0\text{dBm}, V_5 = 5\text{V}$	32.0	34.0	36.0	dB
Total harmonic distortion	THD	$P_O = 1\text{W}, V_5 = 5\text{V}$		0.6	1.2	%
Output noise voltage	V_{NO}	$R_g = 0, V_5 = 0\text{V}, \text{DIN AUDIO}$		0.05	0.5	mV
Output power	P_O	$\text{THD} = 10\%, V_5 = 5\text{V}$	2.5	3.0		W
Maximum attenuation	ATT	$V_{IN} = 100\text{mVrms}, V_5 = 0\text{V}, \text{DIN AUDIO}$	-70	-80		dBm
Input resistance	R_i		30	40	50	$\text{k}\Omega$

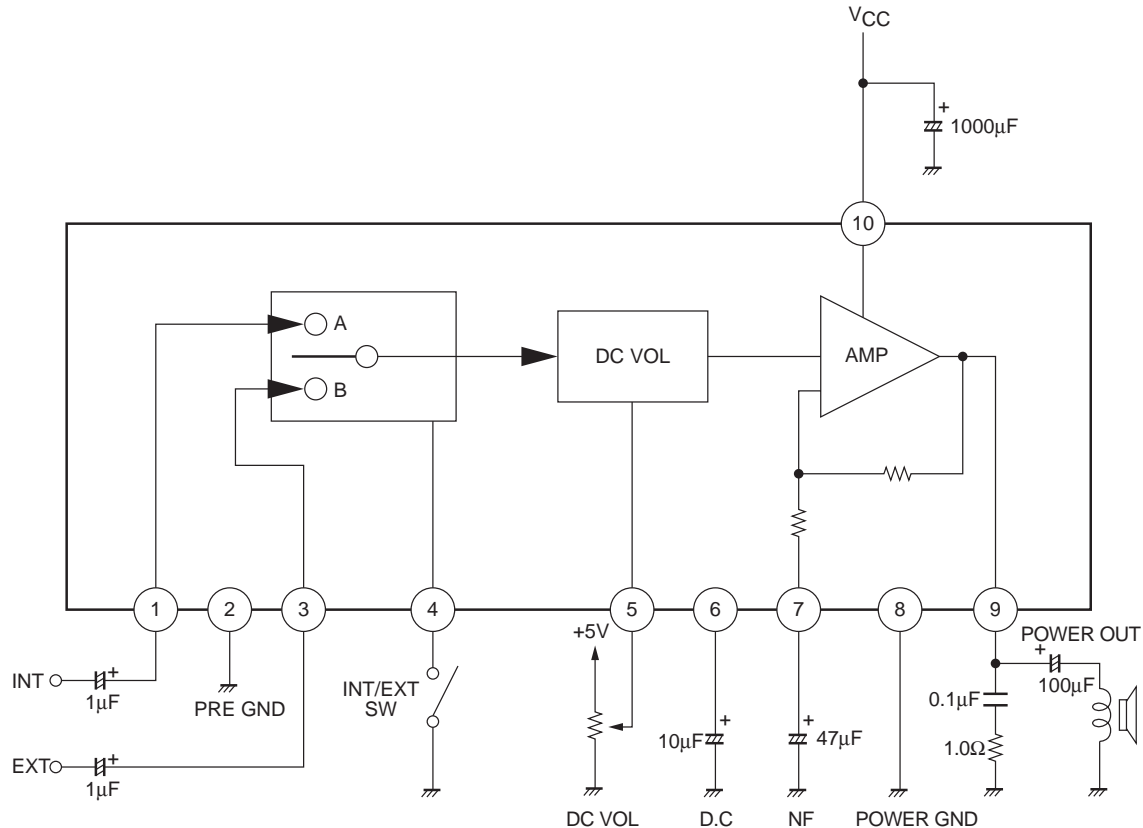
Package Dimensions

unit : mm (typ)

3046D



Block Diagram



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