SGS-THOMSON MICROELECTRONICS

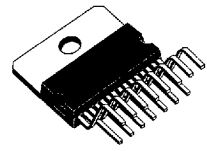
TDA7266

7+7W DUAL BRIDGE AMPLIFIER

PRODUCT PREVIEW

- WIDE SUPPLY VOLTAGE RANGE (3-18V)
- MINIMUM EXTERNAL COMPONENTS
  - NO SWR CAPACITOR
  - NO BOOTSTRAP
  - NO BOUCHEROT CELLS
  - INTERNALLY FIXED GAIN
- STAND-BY & MUTE FUNCTIONS
- SHORT CIRCUIT PROTECTION
- THERMAL OVERLOAD PROTECTION

TECHNOLOGY BI20II



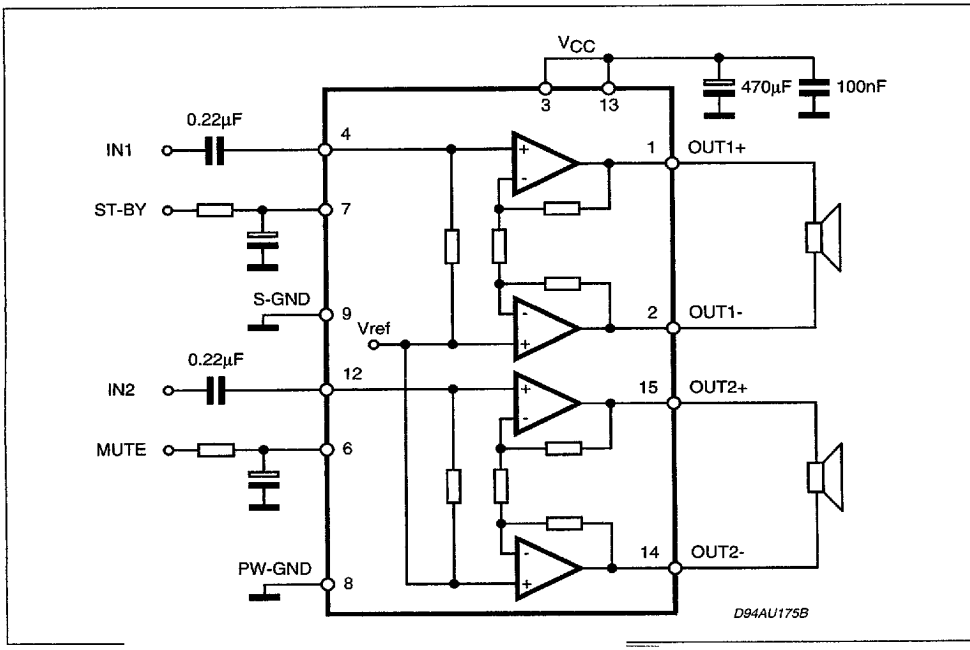
Multiwatt 15

ORDERING NUMBER: TDA7266

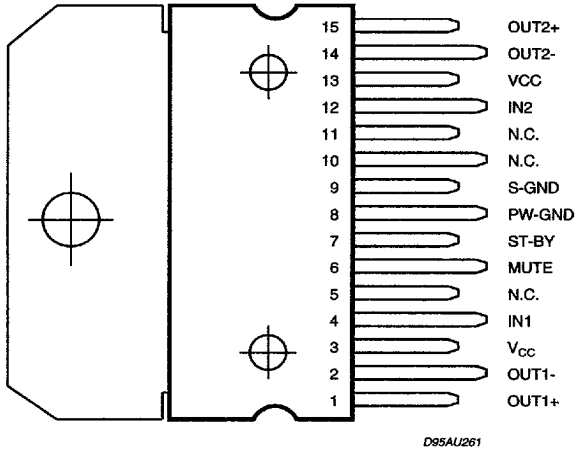
DESCRIPTION

The TDA7266 is a dual bridge amplifier specially designed for TV and Portable Radio applications.

BLOCK AND APPLICATION DIAGRAM



PIN CONNECTION (Top view)



ELECTRICAL CHARACTERISTICS (V_{CC} = 11V, R_L = 8Ω, f = 1kHz, T_{amb} = 25°C unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V_{CC}	Supply Range		3	11	18	V
I_q	Total Quiescent Current			40		mA
V_{OS}	Output Offset Voltage				200	mV
P_O	Output Power	THD = 10%		7		W
THD	Total Harmonic Distortion	P_O = 0.5W			1	%
SVR	Supply Voltage Rejection		36			dB
CT	Crosstalk		40			dB
A_{MUTE}	Mute Attenuation			60		dB
T_W	Thermal Warining			150		°C
G_V	Closed Loop Voltage Gain		25	26	27	dB
R_i	Input Resistance			30		KΩ
VT_{MUTE}	Mute Threshold	for V_{CC} > 6.4V for V_{CC} < 6.4V		3.2 $V_{CC}/2$		V
VT_{ST-BY}	St-by Threshold			1.3		V
e_N	Total Output Noise Voltage	A curve f = 20Hz to 20kHz		150		μV

APPLICATION SUGGESTION

STAND-BY AND MUTE FUNCTIONS

(A) Microprocessor Application

In order to avoid annoying "Pop-Noise" during Turn-On/Off transients, it is necessary to guarantee the right St-by and mute signals sequence. It is quite simple to obtain this function using a microprocessor (Fig. 1 and 2).

At first St-by signal (from mP) goes high and the voltage across the St-by terminal (Pin 7) starts to increase exponentially. The external RC network is intended to turn-on slowly the biasing circuits of the amplifier, this to avoid "POP" and "CLICK" on the outputs.

When this voltage reaches the St-by threshold level, the amplifier is switched-on and the external capacitors in series to the input terminals (C3, C5) start to charge.

It's necessary to mantain the mute signal low until the capacitors are fully charged, this to avoid that the device goes in play mode causing a loud "Pop Noise" on the speakers.

A delay of 100-200ms between St-by and mute signals is suitable for a proper operation.

Figure 1: Microprocessor Application

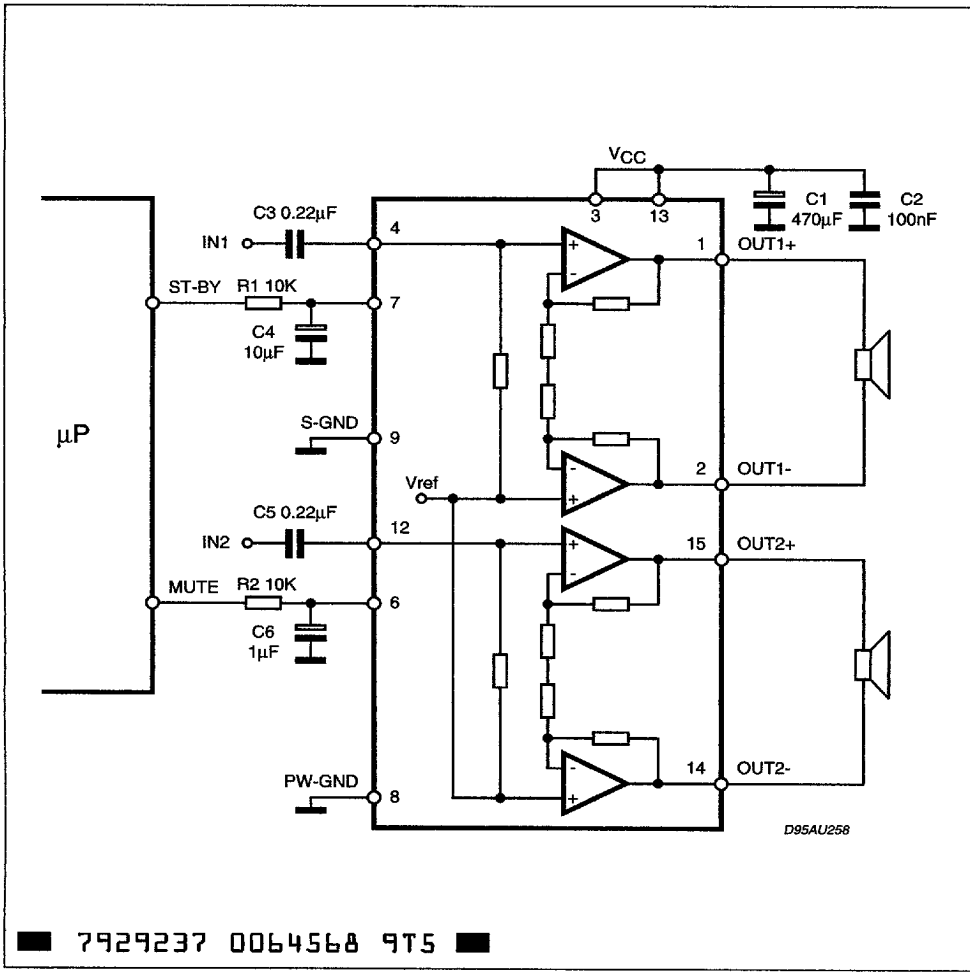
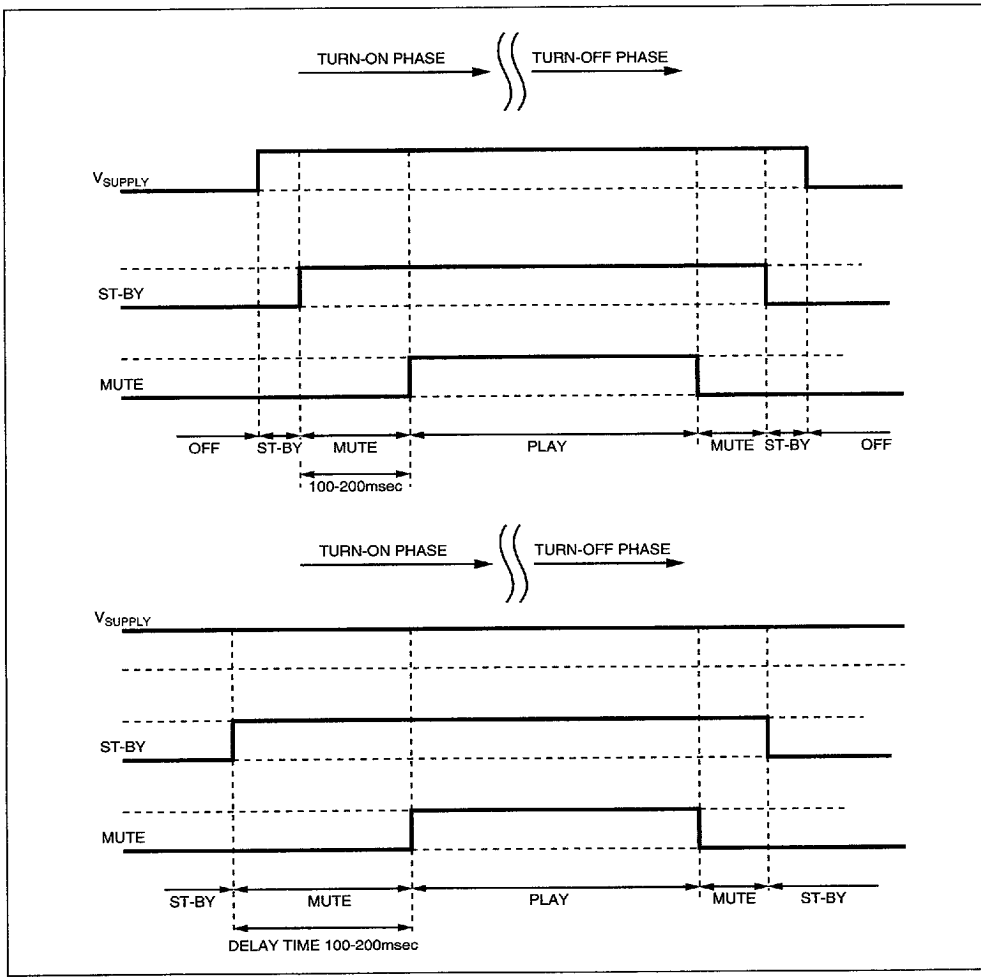


Figure 2: Microprocessor Driving Signals.



(B) Low Cost Application

In low cost applications where the mP is not present, the suggested circuit is shown in fig.3.

The St-by and mute terminals are tied together and they are connected to the supply line via an external voltage divider.

The device is switched-on/off from the supply line and the external capacitor C4 is intended to delay the St-by and mute threshold exceeding, avoiding "Popping" problems.

Figure 3: Stand-alone Low-cost Application.