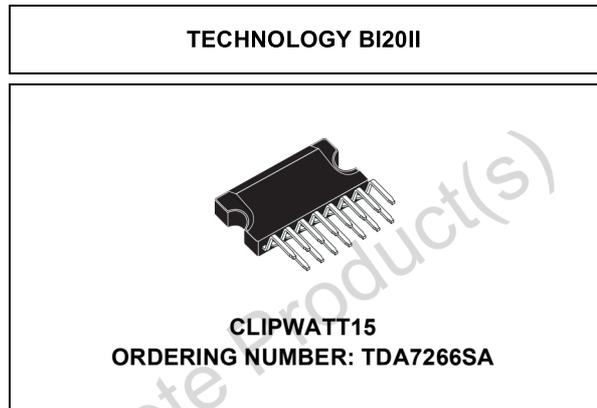




# TDA7266SA

## 7W+7W DUAL BRIDGE AMPLIFIER

- WIDE SUPPLY VOLTAGE RANGE (3.5-18V)
- MINIMUM EXTERNAL COMPONENTS
  - NO SWR CAPACITOR
  - NO BOOTSTRAP
  - NO BOUCHEROT CELLS
  - INTERNALLY FIXED GAIN
- STAND-BY & MUTE FUNCTIONS
- SHORT CIRCUIT PROTECTION
- THERMAL OVERLOAD PROTECTION

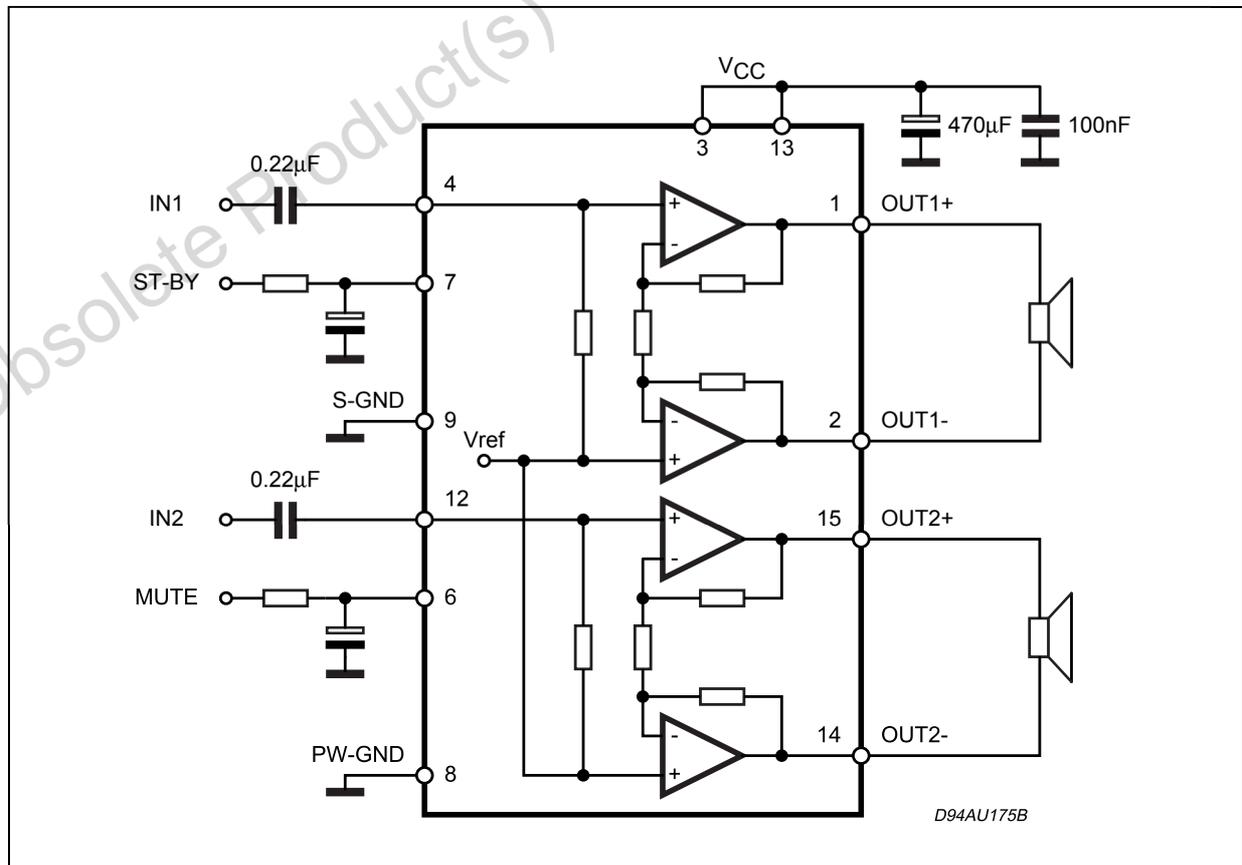


### DESCRIPTION

The TDA7266SA is a dual bridge amplifier specially designed for LCD Monitor, PC Motherboard, TV and Portable Radio applications.

Pin to pin compatible with: TDA7266S, TDA7266, TDA7266M, TDA7266MA, TDA7266B, TDA7297SA & TDA7297.

### BLOCK AND APPLICATION DIAGRAM



# TDA7266SA

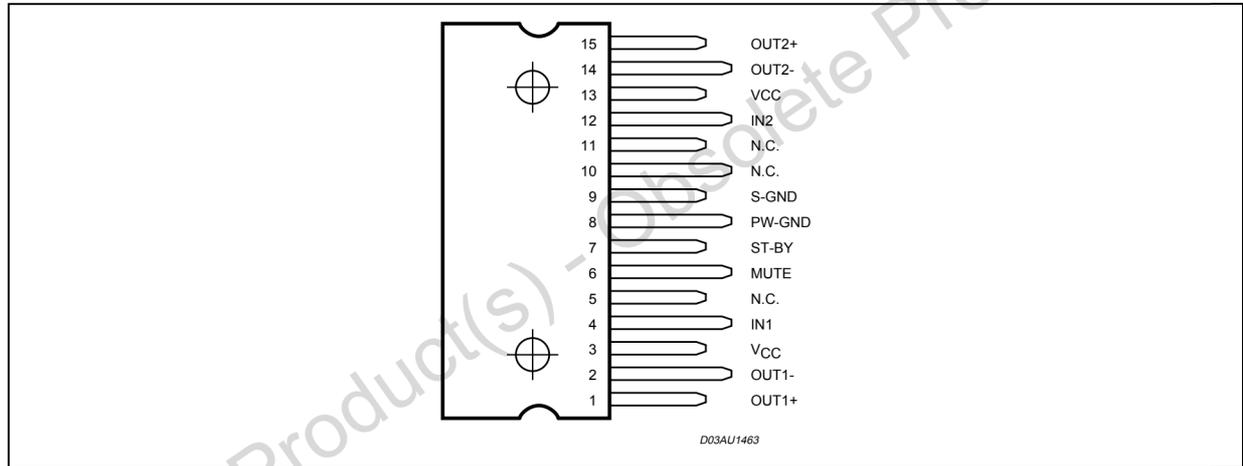
## ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_s$	Supply Voltage	20	V
$I_O$	Output Peak Current (internally limited)	2	A
$P_{tot}$	Total Power Dissipation ( $T_{amb} = 70^\circ\text{C}$ )	20	W
$T_{op}$	Operating Temperature	0 to 70	$^\circ\text{C}$
$T_{stg}, T_j$	Storage and Junction Temperature	-40 to 150	$^\circ\text{C}$

## THERMAL DATA

Symbol	Parameter	Value	Unit
$R_{th\ j\text{-}case}$	Thermal Resistance Junction-case	Typ = 1.8; Max. = 2.5	$^\circ\text{C/W}$
$R_{th\ j\text{-}amb}$	Thermal Resistance Junction-ambient	48	$^\circ\text{C/W}$

## PIN CONNECTION (Top view)



## ELECTRICAL CHARACTERISTICS

( $V_{CC} = 11\text{V}$ ,  $R_L = 8\Omega$ ,  $f = 1\text{KHz}$ ,  $T_{amb} = 25^\circ\text{C}$  unless otherwise specified)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
$V_{CC}$	Supply Range		3	11	18	V
$I_q$	Total Quiescent Current			50	65	mA
$V_{OS}$	Output Offset Voltage				120	mV
$P_O$	Output Power	THD 10%	6.3	7		W
THD	Total Harmonic Distortion	$P_O = 1\text{W}$		0.05	0.2	%
		$P_O = 0.1\text{W to } 2\text{W}$ $f = 100\text{Hz to } 15\text{KHz}$			1	%
SVR	Supply Voltage Rejection	$f = 100\text{Hz}$ , $V_R = 0.5\text{V}$	40	56		dB
CT	Crosstalk		46	60		dB
$A_{MUTE}$	Mute Attenuation		60	80		dB
$T_w$	Thermal Threshold			150		$^\circ\text{C}$
$G_V$	Closed Loop Voltage Gain		25	26	27	dB
$\Delta G_V$	Voltage Gain Matching				0.5	dB

**ELECTRICAL CHARACTERISTICS** (continued)(V<sub>CC</sub> = 11V, R<sub>L</sub> = 8Ω, f = 1KHz, T<sub>amb</sub> = 25°C unless otherwise specified)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
R <sub>i</sub>	Input Resistance		25	30		KΩ
V <sub>T</sub> MUTE	Mute Threshold	for V <sub>CC</sub> > 6.4V; V <sub>o</sub> = -30dB	2.3	2.9	4.1	V
		for V <sub>CC</sub> < 6.4V; V <sub>o</sub> = -30dB	V <sub>CC</sub> /2 -1	V <sub>CC</sub> /2 -075	V <sub>CC</sub> /2 -0.5	V
V <sub>T</sub> ST-BY	St-by Threshold		0.8	1.3	1.8	V
I <sub>ST-BY</sub>	St-by Current V <sub>6</sub> = GND				100	μA
e <sub>N</sub>	Total Output Voltage	A Curve; f = 20Hzto 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 μP) 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, C53) start to charge.

It's necessary to maintain 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**