

DATA SHEET

TDA7056B

**5 W mono BTL audio amplifier with
DC volume control**

Product specification
Supersedes data of 1996 May 28

1997 Aug 15



5 W mono BTL audio amplifier with DC volume control

TDA7056B

FEATURES

- DC volume control
- Few external components
- Mute mode
- Thermal protection
- Short-circuit proof
- No switch-on and switch-off clicks
- Good overall stability
- Low power consumption
- Low HF radiation
- ESD protected on all pins.

GENERAL DESCRIPTION

The TDA7056B is a mono Bridge-Tied Load (BTL) output amplifier with DC volume control.

It is designed for use in TV and monitors, but is also suitable for battery-fed portable recorders and radios.

The device is contained in a 9-pin medium power package.

A Missing Current Limiter (MCL) is built in. The MCL circuit is activated when the difference in current between the output terminal of each amplifier exceeds 100 mA (300 mA typ.). This level of 100 mA allows for headphone applications (single-ended).

QUICK REFERENCE DATA

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
V_P	supply voltage		4.5	–	18	V
P_O	output power	$V_P = 12\text{ V}$ $R_L = 16\ \Omega$ $R_L = 8\ \Omega$	3 5	3.5 5.5	– –	W W
$G_{V(\max)}$	maximum total voltage gain		39.5	40.5	41.5	dB
ϕ	gain control		68	73.5	–	dB
$I_{q(\text{tot})}$	total quiescent current	$V_P = 12\text{ V}; R_L = \infty$	–	9.2	13	mA
THD	total harmonic distortion	$P_O = 0.5\text{ W}$	–	0.3	1	%

ORDERING INFORMATION

TYPE NUMBER	PACKAGE		
	NAME	DESCRIPTION	VERSION
TDA7056B	SIL9MPF	plastic single in-line medium power package with fin; 9 leads	SOT110-1

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BLOCK DIAGRAM

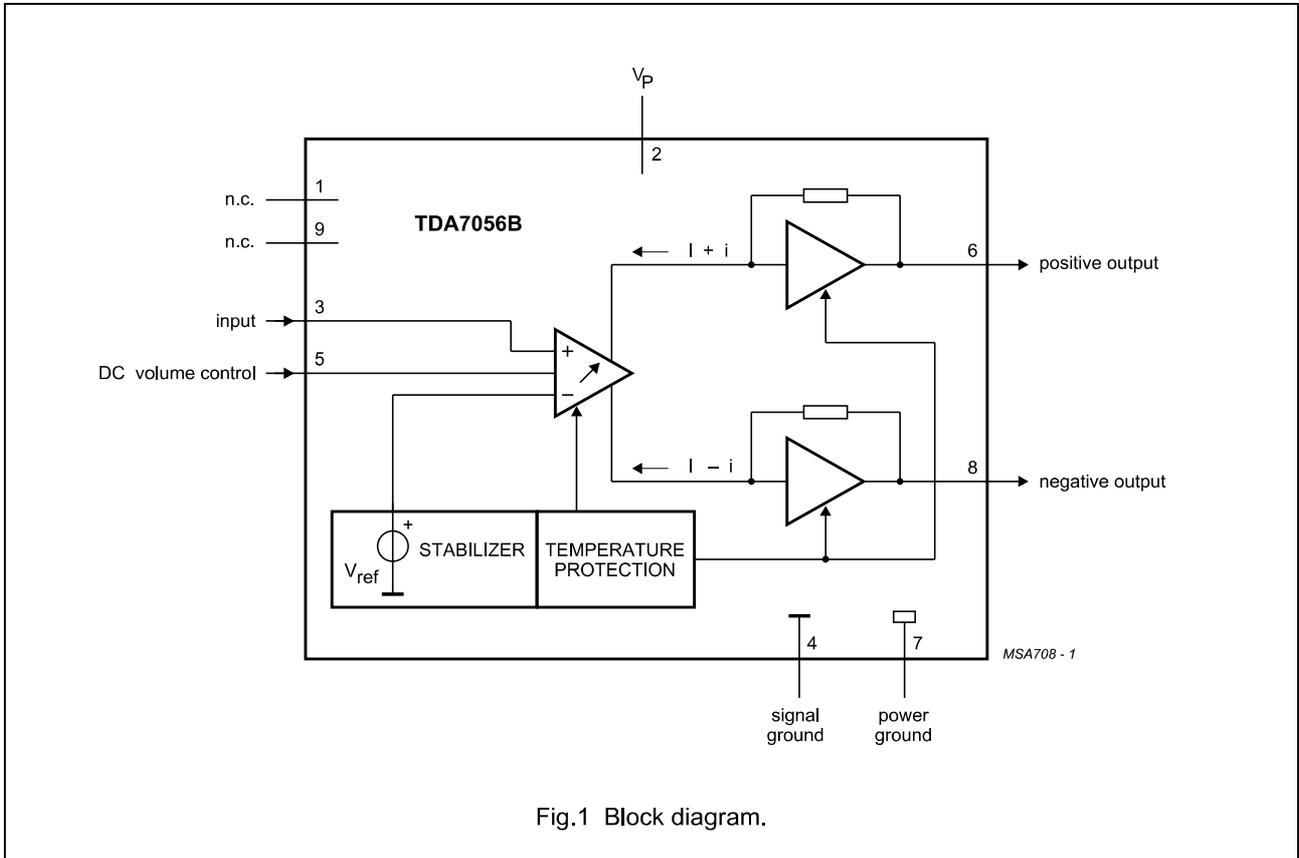


Fig.1 Block diagram.

PINNING

SYMBOL	PIN	DESCRIPTION
n.c.	1	not connected
V_P	2	positive supply voltage
V_I	3	voltage input
GND1	4	signal ground
VC	5	DC volume control
OUT+	6	positive output
GND2	7	power ground
OUT-	8	negative output
n.c.	9	not connected

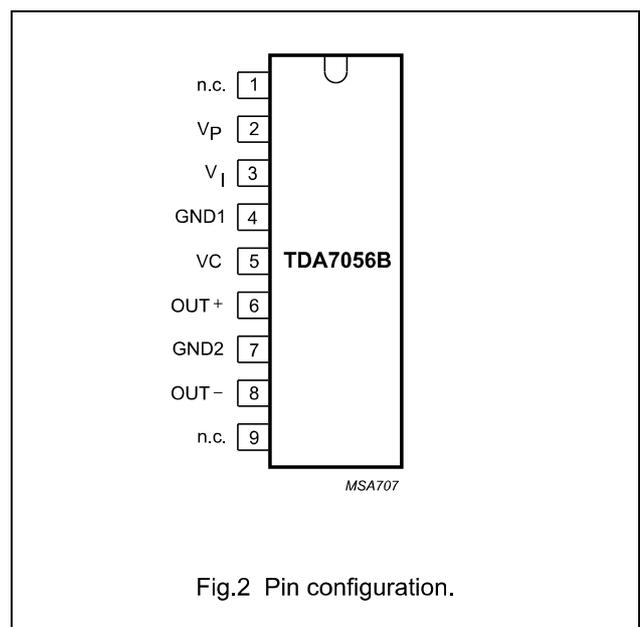


Fig.2 Pin configuration.