

LINEAR INTEGRATED CIRCUITS **=RADIO-TV=**



\$ **TBA 810AS**
\$ **TBA 810S**
AF AMPLIFIERS

The TBA 810 are monolithic integrated power amplifiers, designed for class B audio amplification with up to 7 W output power, in 12-lead quad in-line plastic package.

For TBA 810S is possible to use a part of the printed circuit board as heatsink. The cooling tabs of the TBA 810AS are flat and pierced so that an external heatsink can be easily attached.

Few external components are required for its main application as an power amplifier.

Features

- Operating temperature	0 ...	+ 70 °C
- Storage temperature	-25 ...	+125 °C
- Junction temperature	max.	+150 °C
- Supply voltage	4 ...	20 V
- Repetitive peak output current	max.	2.5 A
- Non-repetitive output current	max.	3.5 A
- Voltage gain (open loop)	typ.	80 dB
- Output power (@ 16 V/ 4 ohms)	typ.	7 W
- Internally thermal protection (TJ = 150 °C)		

Electrical characteristics

(Vcc = 14.4 V, RL = 4 ohms, Rf = 56 ohms, TA = +25 °C)

- Quiescent output voltage	typ.	7.2 V
- Quiescent current	typ.	12 mA
- Output power (THD = 10 %)	typ.	6 W
- Voltage gain (closed loop)	34 ...	40 dB
- THD (Po = 50 mW ... 3 W)	typ.	0.3 %
- Input noise	typ.	2 µV
- Supply voltage rejection	typ.	38 dB

Thermal data

- Junction-tab thermal resistance	TBA 810S	max.	12 °C/W
	TBA 810AS	max.	10 °C/W
- Junction-ambient thermal resistance	TBA 810S	max. (*)	70 °C/W
	TBA 810AS	max.	80 °C/W

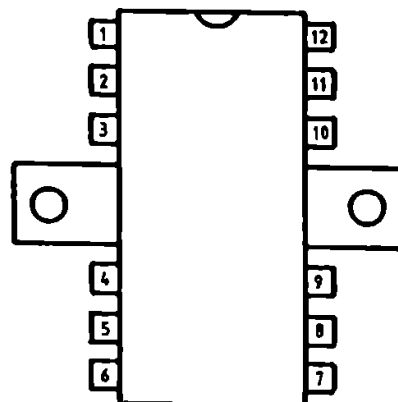
(*) With TABS soldered to printed circuit board with minimized copper area.



TBA 810AS ; TBA 810S (cont.)

TBA 810AS

1. V+
2. NC
3. NC
4. Bootstrap
5. Compensation
6. Feedback
7. Ripple rejection
8. Input
9. GND (substrate)
10. GND (output stage)
11. NC
12. Output

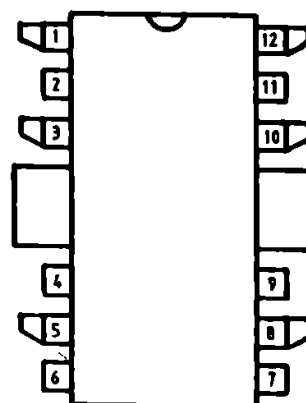


(TABS must be grounded)

PACKAGE CB-155 / TOP VIEW

TBA 810S

1. V+
2. NC
3. NC
4. Bootstrap
5. Compensation
6. Feedback
7. Ripple rejection
8. Input
9. GND (substrate)
10. GND (output stage)
11. NC
12. Output



(TABS must be grounded)

PACKAGE CB-109 / TOP VIEW