

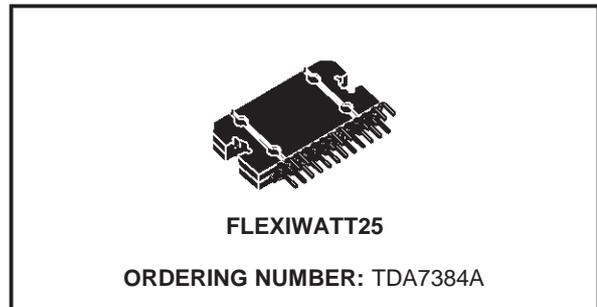


## 4 x 35W QUAD BRIDGE CAR RADIO AMPLIFIER

- HIGH OUTPUT POWER CAPABILITY:
  - 4 x 40W/4Ω MAX.
  - 4 x 35W/4Ω EIAJ
  - 4 x 25W/4Ω @ 14.4V, 1KHz, 10%
  - 4 x 22W/4Ω @ 13.2V, 1KHz, 10%
- LOW DISTORTION
- LOW OUTPUT NOISE
- ST-BY FUNCTION
- MUTE FUNCTION
- AUTOMUTE AT MIN. SUPPLY VOLTAGE DETECTION
- LOW EXTERNAL COMPONENT COUNT:
  - INTERNALLY FIXED GAIN (26dB)
  - NO EXTERNAL COMPENSATION
  - NO BOOTSTRAP CAPACITORS

### PROTECTIONS:

- OUTPUT SHORT CIRCUIT TO GND, TO  $V_S$ , ACROSS THE LOAD
- VERY INDUCTIVE LOADS
- OVERRATING CHIP TEMPERATURE WITH SOFT THERMAL LIMITER
- LOAD DUMP VOLTAGE



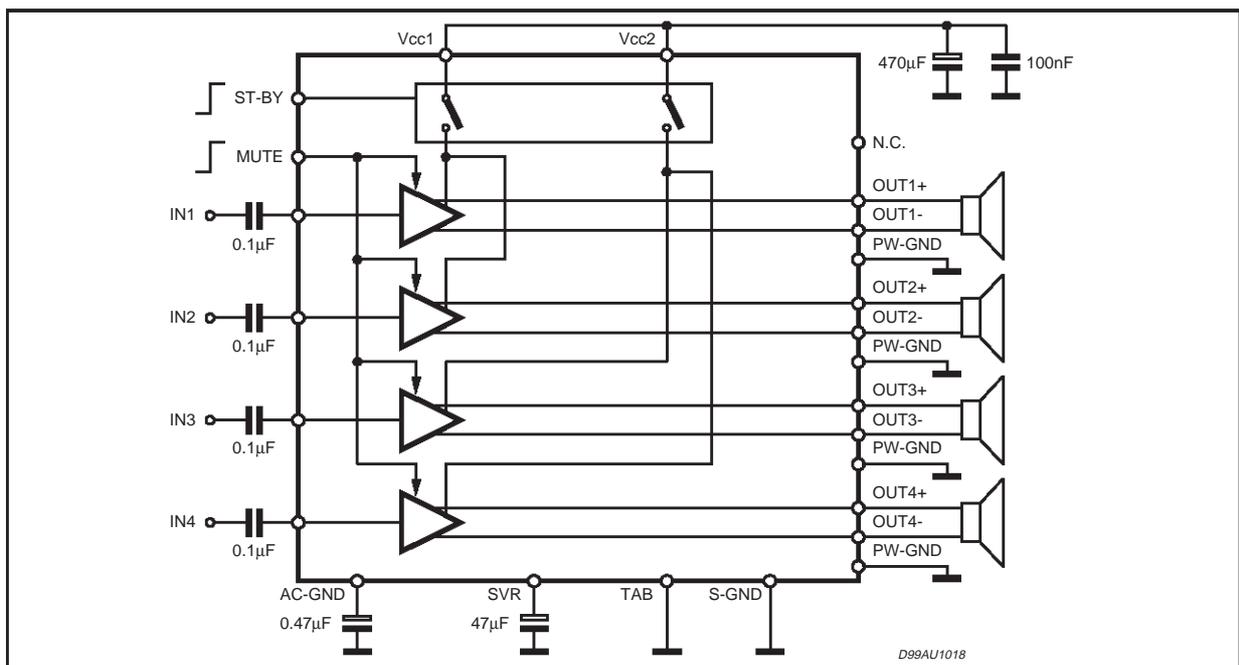
- FORTUITOUS OPEN GND
- REVERSED BATTERY
- ESD

### DESCRIPTION

The TDA7384A is a new technology class AB Audio Power Amplifier in Flexiwatt 25 package designed for high end car radio applications.

Thanks to the fully complementary PNP/NPN output configuration the TDA7384A allows a rail to rail output voltage swing with no need of bootstrap capacitors. The extremely reduced components count allows very compact sets.

### BLOCK AND APPLICATION DIAGRAM

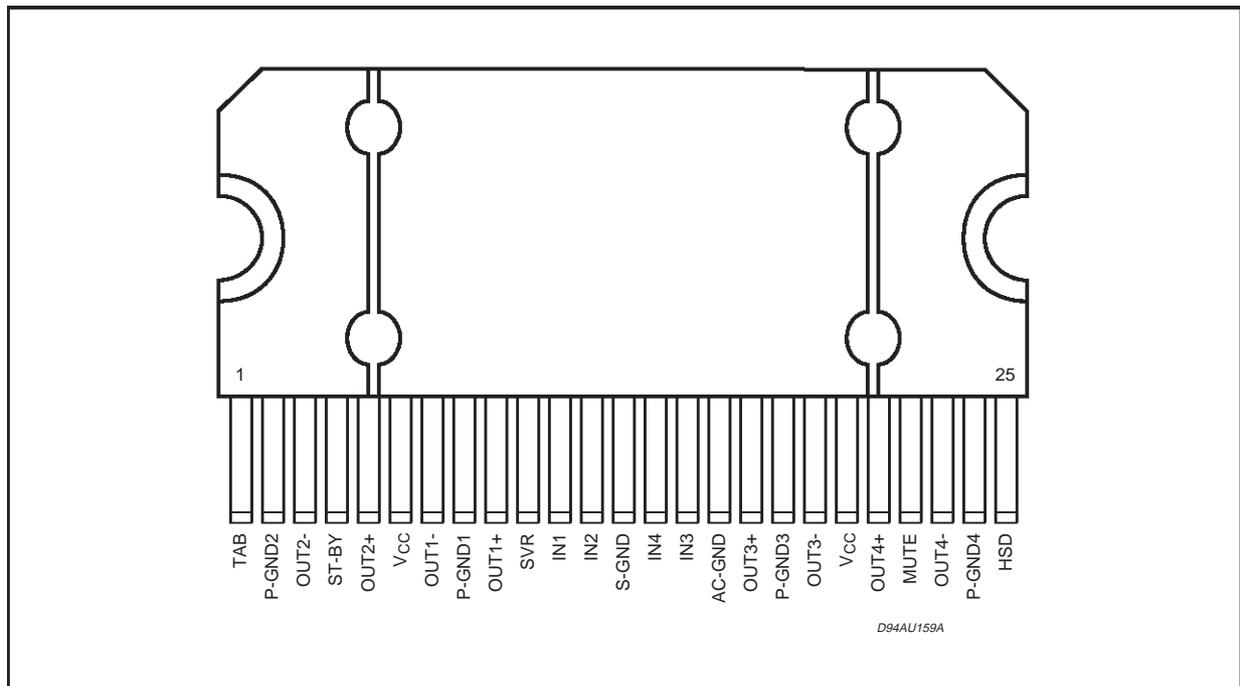


# TDA7384A

## ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_{CC}$	Operating Supply Voltage	18	V
$V_{CC(DC)}$	DC Supply Voltage	28	V
$V_{CC(pk)}$	Peak Supply Voltage (t = 50ms)	50	V
$I_o$	Output Peak Current: Repetitive (Duty Cycle 10% at f = 10Hz)	4.5	A
	Non Repetitive (t = 100 $\mu$ s)	5.5	A
$P_{tot}$	Power dissipation, (T <sub>case</sub> = 70°C)	80	W
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	- 55 to 150	°C

## PIN CONNECTION (Top view)



## THERMAL DATA

Symbol	Parameter	Value	Unit
$R_{th j-case}$	Thermal Resistance Junction to Case	Max. 1	°C/W