



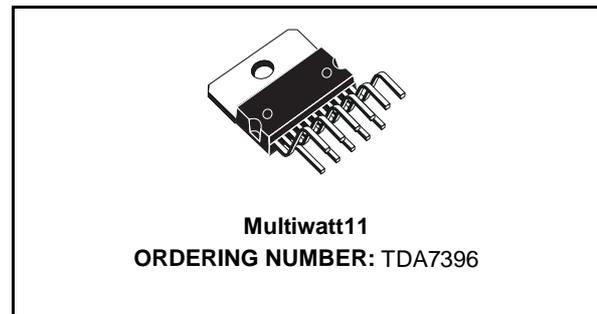
TDA7396

45W/2Ω BRIDGE CAR RADIO AMPLIFIER WITH DIAGNOSTIC FACILITY

- HIGH POWER CAPABILITY:
 - 65W/2Ω MAX
 - 60W/2Ω EIAJ
 - 45W/2Ω @ $V_s = 14.4V$, $f = 1KHz$, $d = 10\%$
- DIFFERENTIAL INPUTS (EITHER SINGLE ENDED OR DIFFERENTIAL INPUT SIGNALS ARE ACCEPTED)
- MINIMUM EXTERNAL COMPONENT COUNT:
 - NO BOOTSTRAP CAPACITORS
 - NO BOUCHEROT CELLS
 - INTERNALLY FIXED GAIN (26dB)
 - NO SVR CAPACITOR
- ST.-BY FUNCTION (CMOS COMPATIBLE)
- AUTOMATIC MUTE DURING TURN-ON/OFF
- AUTOMUTE AT MINIMUM SUPPLY VOLTAGE DETECTION
- SYNCHRONIZING PIN FOR SIMULTANEOUS TURN-ON IN MULTI-DEVICE APPLICATIONS
- NO AUDIBLE POP DURING MUTE AND ST-BY OPERATIONS

Diagnostic Facilities:

- CLIPPING DETECTOR

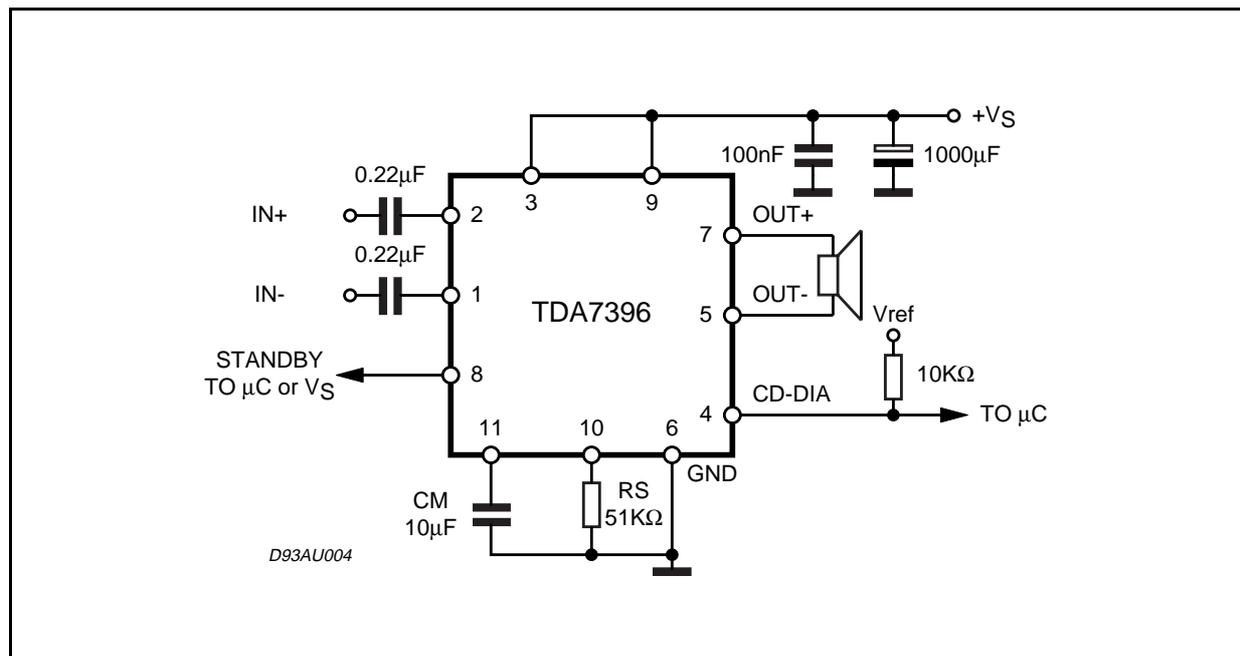


- SHORT CIRCUIT
- OPEN LOAD
- THERMAL SHUTDOWN

PROTECTIONS:

- SHORT CIRCUIT (TO GND, TO V_s , ACROSS THE LOAD)
- VERY INDUCTIVE LOADS
- CHIP OVER-TEMPERATURE
- LOAD DUMP
- OPEN GND
- ESD

Figure 1: Test And Application Circuit



TDA7396

DESCRIPTION

The TDA7396 is a BRIDGE class AB audio power amplifier especially intended for car radio High Power applications.

The 2Ω power capability together with the possibility to operate either in DIFFERENTIAL INPUT MODE or SINGLE ENDED INPUT MODE makes it suitable for boosters and high end car radio ap-

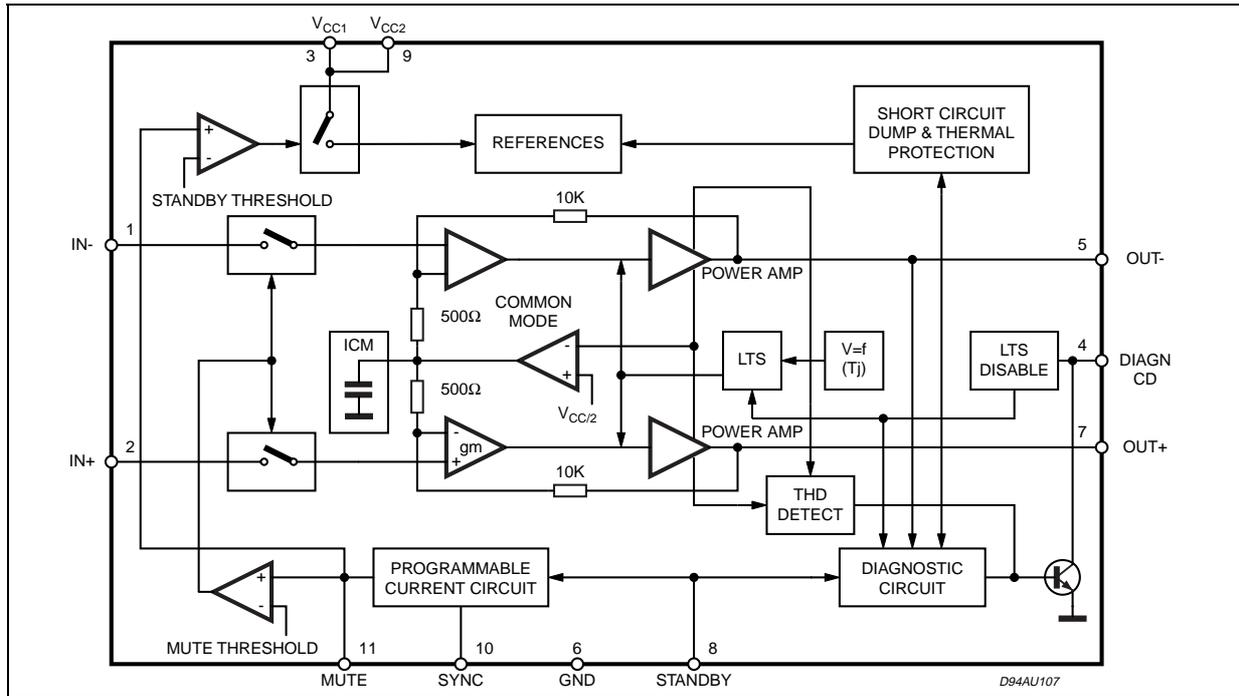
plications.

The exclusive fully complementary output stage and the internally fixed gain configuration drop the external component count.

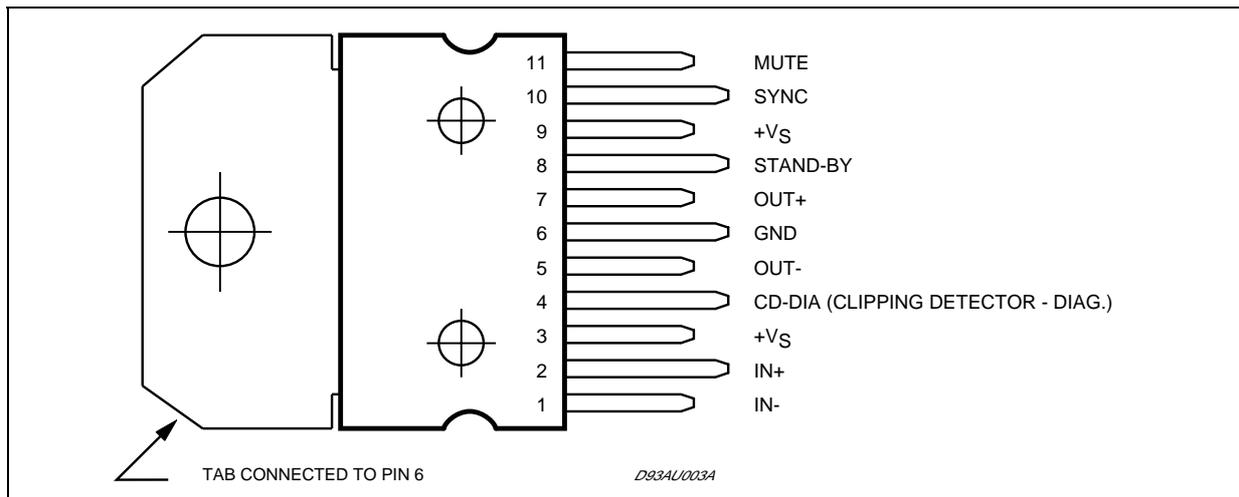
The on board clipping detector allows easy implementation of gain compression systems.

The diagnostics facility allows to detect any mistakes during car radio set assembly and wiring in the car.

Figure 2: Block Diagram



PIN CONNECTION (Top view)



THERMAL DATA

Symbol	Description	Value	Unit
$R_{th\ j-case}$	Thermal Resistance Junction-case	Max 1.5	°C/W