

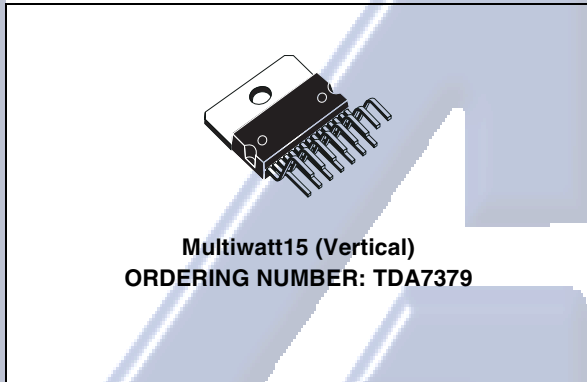


# TDA7379

## 4 X 13 - 2 X 38W AUDIO POWER AMPLIFIER 2 X 13 + 1 X 38W AUDIO POWER AMPLIFIER

PRODUCT PREVIEW

- HIGH OUTPUT POWER CAPABILITY
  - 2 x 38W/4Ω @ 18V, 1KHz, 10%
  - 4 x 11W/4Ω @ 18V, 1KHz, 10%
  - 2 x 20W/8Ω @ 18V; 1KHz, 10%
  - 4 x 13W/2Ω @ 15V, 1KHz, 10%
  - 2 x 34W/8Ω @ 22V, 1kHz, 10%
- MINIMUM EXTERNAL COMPONENTS COUNT:
  - NO BOOTSTRAP CAPACITORS
  - NO BOUCHEROT CELLS
  - INTERNALLY FIXED GAIN (26dB BTL)
- ST-BY FUNCTION (CMOS COMPATIBLE)
- NO AUDIBLE POP DURING ST-BY OPERATIONS
- DIAGNOSTIC FACILITIES
  - CLIP DETECTOR
  - OUT TO GND SHORT
  - OUT TO V<sub>S</sub> SHORT
  - SOFT SHORT AT TURN-ON
  - THERMAL SHUTDOWN PROXIMITY

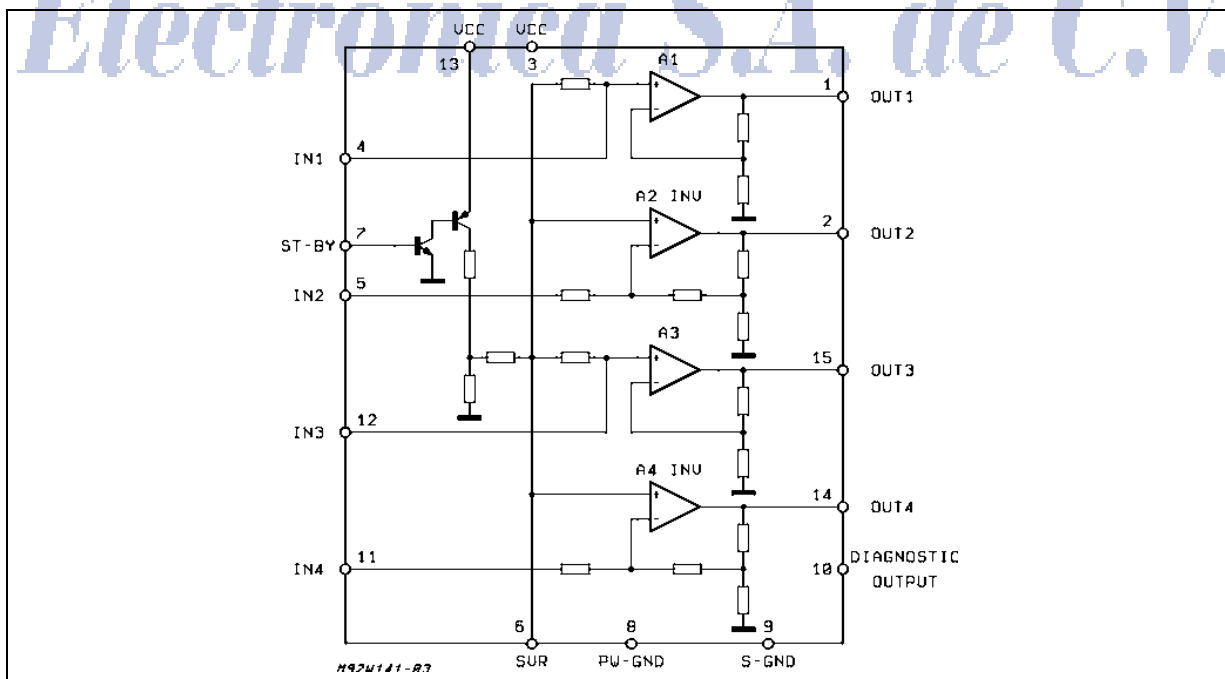


- TO GND
- TO V<sub>S</sub>
- ACROSS THE LOAD
- SOFT SHORT AT TURN-ON
- OVERRATING CHIP TEMPERATURE WITH SOFT THERMAL LIMITER
- FORTUITOUS OPEN GND
- REVERSED BATTERY
- ESD

**Protections:**

- OUPUT AC/DC SHORT CIRCUIT

**BLOCK DIAGRAM**



**TDA7379****DESCRIPTION**

The TDA7379 is a new technology class AB audio processor amplifier able to work either in DUAL BRIDGE or QUAD SINGLE ENDED configuration.

The exclusive fully complementary structure of the output stage and the internally fixed gain guarantee the highest power performances with extremely reduced component count. The on board clip detector simplifies gain compression operation. The fault diagnostic makes it possible to detect mistakes during the set assembly and wiring in the equipment.

**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Value	Unit
$V_s$	Supply Voltage Idle mode (no signal)	24	V
	Supply Voltage operating	22	V
	Supply Voltage AC-DC-short safe	20	V
$I_o$	Output Peak Current (not repetitive $t = 100\mu s$ )	5	A
$I_o$	Output Peak Current (repetitive $f > 10Hz$ )	4	A
$P_{tot}$	Power Dissipation $T_{case} = 85^\circ C$	36	W
$T_{stg}, T_j$	Storage and Junction Temperature	-40 to 150	$^\circ C$

**THERMAL DATA**

Symbol	Parameter	Value	Unit
$R_{th j-case}$	Thermal Resistance Junction to case Max	1.8	$^\circ C/W$

**PIN CONNECTION (Top view)**