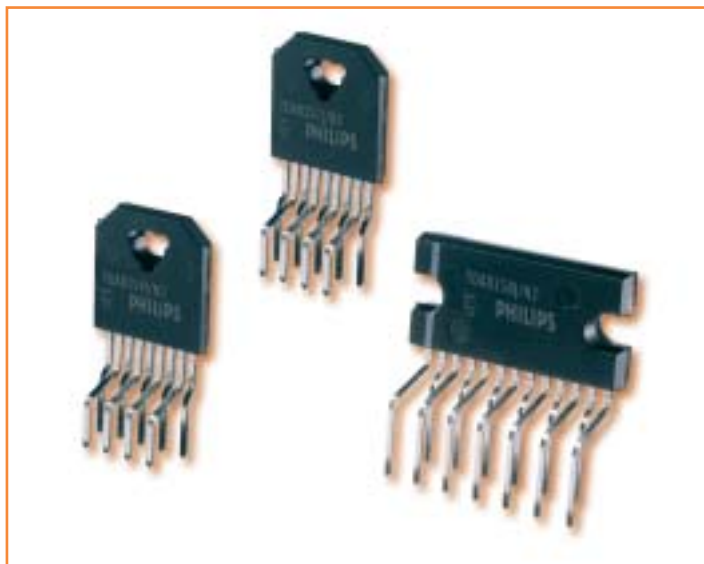


TDA835x family

Full bridge vertical deflection output circuits

Philips Semiconductors has an unequalled reputation in the field of TV technology and continues to develop advanced products for CRT applications. Manufactured using a low voltage DMOS (LVDMOS) process, which integrates bipolar, CMOS and DMOS components, our latest TDA835x family of deflection circuits delivers robust and efficient power solutions for CRTs and color deflection systems.



Applications

- Color deflection systems
- 4:3 and 16:9 CRTs

Key features

- Few external components required
- No additional flash protection components needed
- Highly efficient, fully DC-coupled vertical bridge output circuit
- Vertical flyback switch with short rise / fall times
- Built-in guard circuit
- Thermal protection circuit
- Improved EMC performance due to differential inputs
- East-West output stage (TDA8358 only)

Consisting of TDA8357, TDA8358 and TDA8359, this family of power circuits is primarily designed for 90° and 110° color deflection systems with 25 to 200 Hz field frequencies, and 4:3 and 16:9 picture tubes. The ICs incorporate special input circuits to enable connection to TV processors generating a differential signal, as well as being suitable for single-ended applications.

Each device contains a vertical deflection output circuit operating as a class G system, making optimal use of scan and flyback voltages to ensure very high efficiency. The full bridge output circuit allows DC coupling of the deflection coil in combination with only one positive supply voltage. Together with in-built protection the family also features a guard circuit, activated during either thermal protection or open-loop conditions.

An additional feature of the TDA8358 is an East-West output stage, enabling the IC to supply sink current for a diode modulator circuit.

The TDA8357, TDA8358 and TDA8359 are manufactured, using our LVDMOS process that combines bipolar, CMOS and DMOS devices on the same silicon. By utilizing DMOS transistors in their output stage of the deflection circuits, the temperature is distributed better, making the ICs more robust.

TDA835x family – comparison table

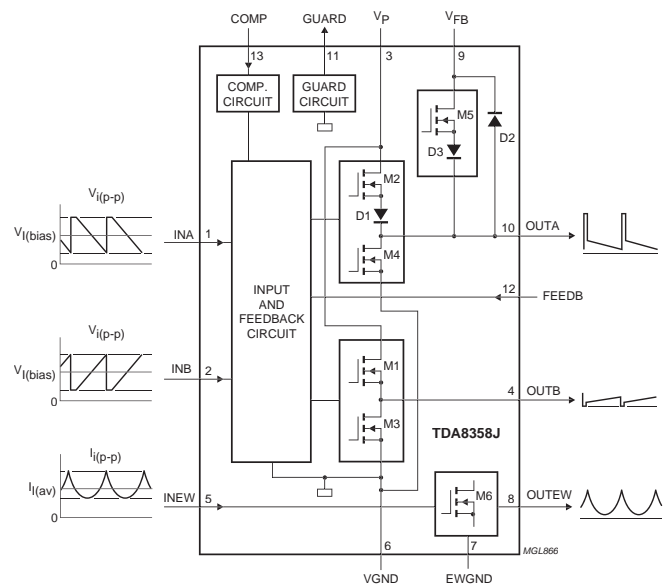
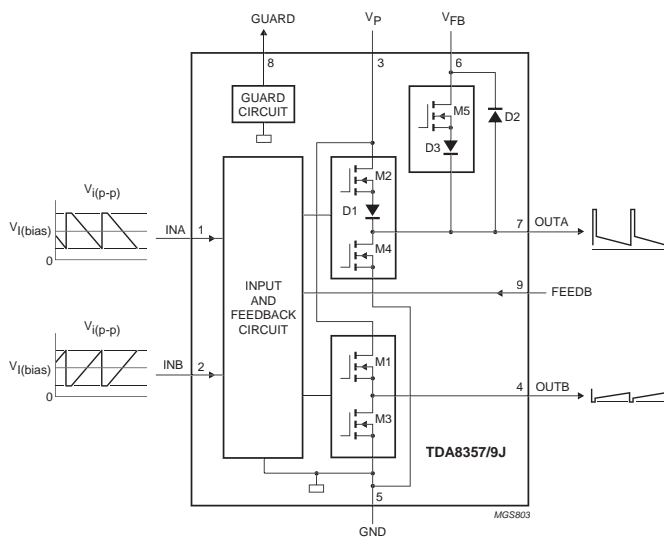
Part number	TDA8357JN2	TDA8359JN2	TDA8358JN2
Output current (peak-to-peak)	2.0 A	3.2 A	3.2 A
E-W output stage	No	No	Yes
Package	DBS9P	DBS9P	DBS13P
Thermal resistance (junction to case)	6 K/W	3 K/W	4 K/W
Replacement for	TDA8356	TDA8351	TDA8350

TDA835x family

Full bridge vertical deflection output circuits



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date of release: October 2002
document order number: 9397 750 10482

Published in the Netherlands