

SECAM IDENTIFICATION CIRCUIT

GENERAL DESCRIPTION

The TDA3724 is a monolithic integrated circuit for SECAM identification in PAL/SECAM (B,G) video tape recorders.

QUICK REFERENCE DATA

| | | | |
|-------------------------------|------------------|------|--------|
| Supply voltage (pin 10) | $V_P = V_{10-8}$ | typ. | 10 V |
| Supply current (pin 10) | $I_P = I_{10}$ | typ. | 16 mA |
| Identification inputs | V3-8 (p-p) | min. | 0,22 V |
| Identification inputs | V4-8 (p-p) | min. | 0,22 V |
| Identification output current | I_1 | min. | 3 mA |

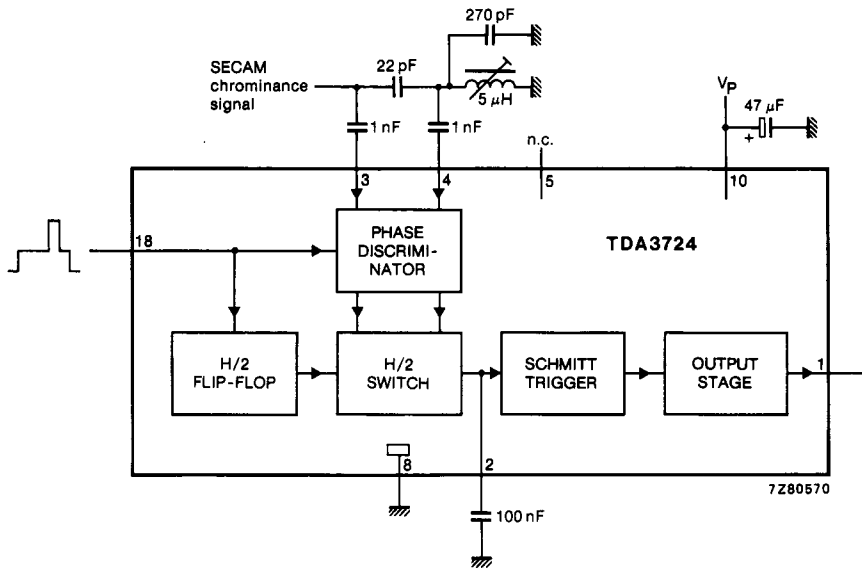


Fig. 1 Block diagram.

PACKAGE OUTLINE

18-lead DIL; plastic (SOT102).

RATINGS

Limiting values in accordance with the Absolute Maximum System (IEC 134)

| | | | |
|-------------------------------------|------------------|------|-----------------------------|
| Supply voltage | $V_P = V_{10-8}$ | max. | 13,2 V |
| Voltage range at pins 3,4,18 | V_{n-8} | | 0 to V_P V |
| Voltage range at pin 2 | V_{2-8} | | $\frac{1}{2}V_P$ to V_P V |
| Current at pin 1 | $-I_1$ | | 5 mA |
| Storage temperature range | T_{stg} | | -25 to +150 °C |
| Operating ambient temperature range | T_{amb} | | 0 to 70 °C |

CHARACTERISTICS $V_P = 10$ V; $T_{amb} = 25$ °C; measured in Fig. 1; unless otherwise specified.

| parameter | symbol | min. | typ. | max. | unit |
|--|--------------------|------|------|-------|------------|
| Supply at pin 10 | | | | | |
| Supply voltage | $V_P = V_{10-8}$ | 9,6 | 10 | 13,2 | V |
| Supply current at $V_P = 10$ V | I_{10} | — | 16 | 21 | mA |
| Supply current at $V_P = 13,2$ V | I_{10} | — | — | 28 | mA |
| Output voltage at pin 1 (open collector of pnp transistor) at SECAM mode | V_{1-8} | 9,3 | — | — | V |
| Output current pin 1 at SECAM mode | $-I_1$ | 3 | — | — | mA |
| Output current pin 1 at NOT SECAM mode | $-I_1$ | — | — | 10 | μ A |
| Charge capacitor for ident. integration | C_{2-8} | 100 | — | 2000 | nF |
| Identification inputs pin 3,4 | | | | | |
| input voltage | $V_{3, 4-8}$ (p-p) | 0,22 | — | 1,0 | V |
| input resistance | $R_{3, 4-8}$ | 14 | — | 22 | k Ω |
| Sandcastle input pin 18 | | | | | |
| input voltage for active discriminating stage | V_{18-8} | 6,0 | — | V_P | V |