

Preliminary TOSHIBA CMOS Digital Integrated Circuit Silicon Monolithic

T6K34

Row Driver LSI for Dot Matrix Graphic LCD

The TOSHIBA T6K34 is a row (common) driver for a small-to-medium-sized dot matrix graphic LCD.

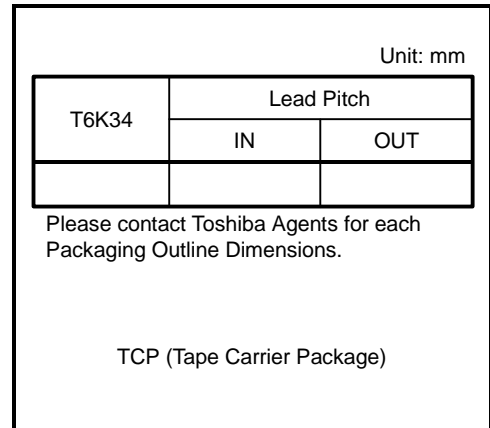
The T6K34 has 168 outputs for LCD driver signals (common).

The T6K34 contains a power supply circuit with electronic volume enabling the LCD to be driven by a single power supply.

Thus, in combination with a T6K33/S6B0021 (by Samsung) segment driver, the T6K34 can be used to implement a low-power LCD system without the need for a separate power supply IC.

Features

- LCD drive outputs: 168 common outputs
- Operating voltage: $V_{DD} = 1.8\text{ V} \sim 3.3\text{ V}$, $V_{IN} = 2.7\text{ V} \sim 3.6\text{ V}$
($V_{DD} \leq V_{IN}$)
- LCD drive voltage: 28.8 V (max)
- Booster circuit: $V_{IN} \times (-6)$ max
- Contrast control: 64 steps (max)
- Partial display function
- CMOS process
- Package: Bump chip (COF), TCP (tape carrier package)
- Low power consumption: $I_{SS} = 225\ \mu\text{A}$ (typ.) Design target
Conditions: $V_{DD} = V_{IN} = 3.0\text{ V}$, using $\times 5$ booster,
LCD non-leaded, $T_a = 25^\circ\text{C}$, 1/168 duty, 1/6 bias,
PCK = 15 kHz, contrast = 20H
- Voltage regulator: Temperature coefficient = $-0.0\%/^\circ\text{C}$ (typ.) $\pm 0.04\%/^\circ\text{C}$



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