

SANYO

No.1465D

LC7570, 7570E

Static Drivers for Vacuum Fluorescent
Display for Frequency Display Applications

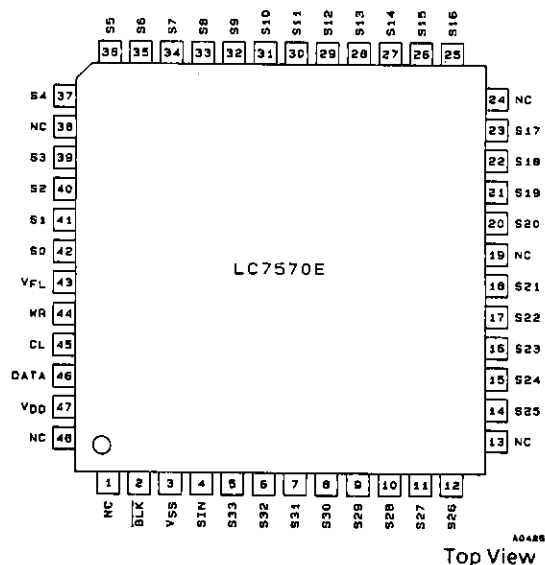
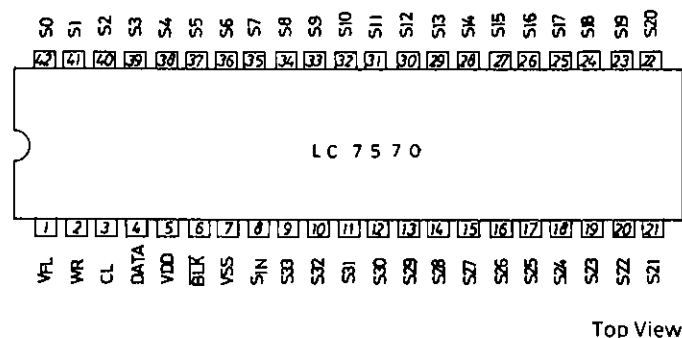
Overview

The LC7570, LC7570E are controller-controlled static drivers for vacuum fluorescent display to be used in electronic tuning frequency indicator applications.

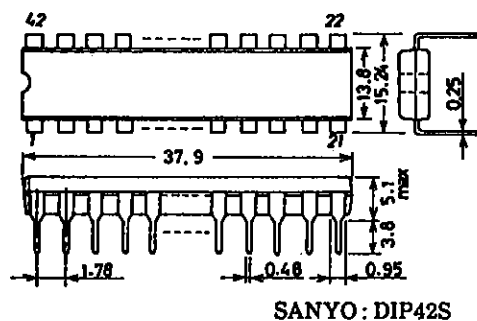
Features

- 34-segment output (With pull-down resistor).
- 5-step A/D converter.
- The display can be forced to the off state with the $\overline{\text{BLK}}$ pin.
- Data input: Serial input (CL, DATA, WR).
- The program of a controller can be used to suit the segment outputs to the pin assignment of a vacuum fluorescent display.

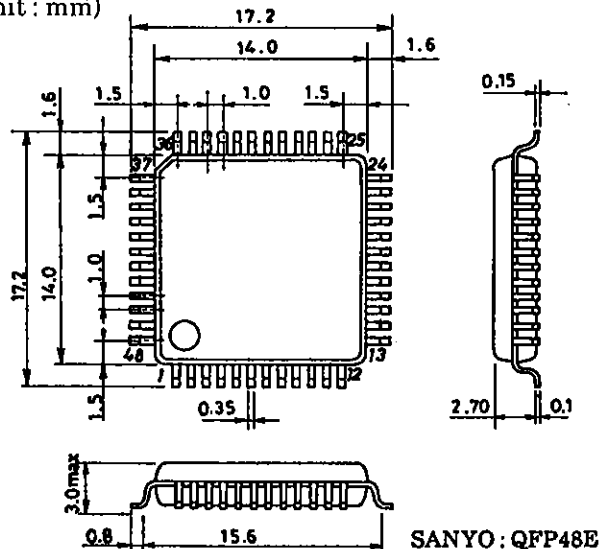
Pin Assignments



Package Dimensions 3025B [LC7570]
(unit: mm)



Package Dimensions 3156 [LC7570E]
(unit: mm)



SANYO Electric Co., Ltd. Semiconductor Business Headquarters
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

Absolute Maximum Ratings at Ta=25°C, VSS=0V

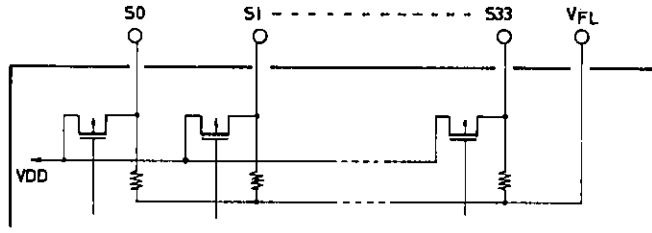
Allowable Operating Ranges at $T_a = -30$ to $+75^\circ\text{C}$, $V_{SS} = 0\text{V}$

Electrical Characteristics in the Allowable Operating Ranges

[illegible]

Pin Description

S0 to S33, V_{FL} : Segment outputs and common pin for pull-down resistors.



\overline{BLK} : Input for making display unlighted
 $\overline{BLK} = \text{'0'}$ (V_{SS}) Unlighted
 $\overline{BLK} = \text{'1'}$ (V_{DD}) Lighted

CL, DATA, WR : Data input

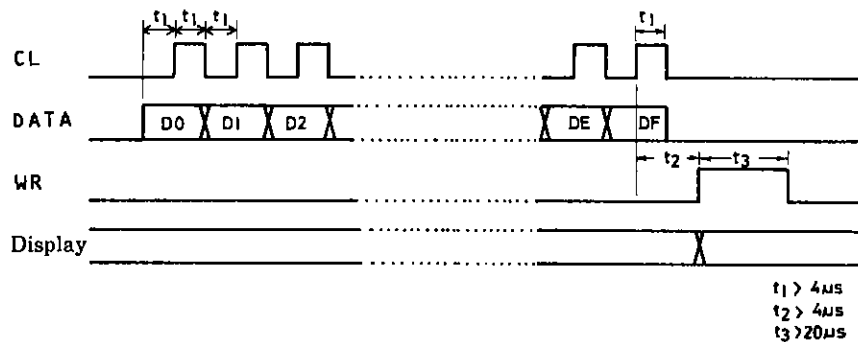
V_{DD}, V_{SS} : Power supply pin

SIN : A/D converter input

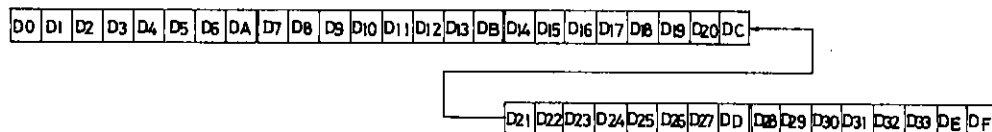
1st step light-up level $0.1V_{DD}$ (typ)
 2nd step light-up level $0.2V_{DD}$ (typ)
 3rd step light-up level $0.3V_{DD}$ (typ)
 4th step light-up level $0.4V_{DD}$ (typ)
 5th step light-up level $0.5V_{DD}$ (typ)

NC : No connect

Data Input



Inputting starts at D0.



D0 to D33 : Display data
 DA to DE : Dummy bit (don't care)
 DF : S29 to S33 select

$D_n = \text{'1'}$: $S_n = \text{'1'}$ ($= V_{DD}$)
 $D_n = \text{'0'}$: $S_n = \text{'0'}$ ($= V_{FL}$)
 DF = '0' : D29 to D33 → S29 to S33
 DF = '1' : AD1 → S33
 AD2 → S32
 AD3 → S31
 AD4 → S30
 AD5 → S29

- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of June, 1995. Specifications and information herein are subject to change without notice.