

54150/DM54150/DM74150, 54151A/DM54151A/DM74151A Data Selectors/Multiplexers

General Description

These data selectors/multiplexers contain full on-chip decoding to select the desired data source. The 150 selects one-of-sixteen data sources; the 151A selects one-of-eight data sources. The 150 and 151A have a strobe input which must be at a low logic level to enable these devices. A high level at the strobe forces the W output high and the Y output (as applicable) low.

The 151A features complementary W and Y outputs, whereas the 150 has an inverted (W) output only.

The 151A incorporates address buffers which have symmetrical propagation delay times through the complementary paths. This reduces the possibility of transients occurring at the output(s) due to changes made at the select inputs, even when the 151A outputs are enabled (i.e., strobe low).

Features

- 150 selects one-of-sixteen data lines
- 151A selects one-of-eight data lines
- Performs parallel-to-serial conversion
- Permits multiplexing from N lines to one line
- Also for use as Boolean function generator
- Typical average propagation delay time, data input to W output

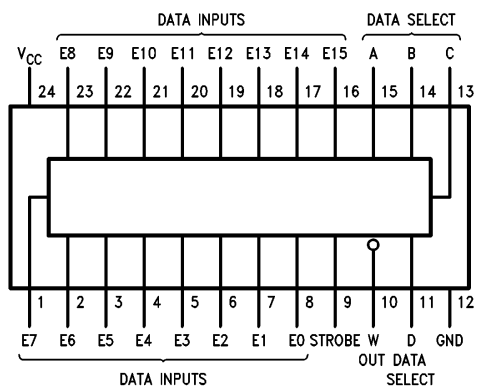
| | |
|------|-------|
| 150 | 11 ns |
| 151A | 9 ns |
- Typical power dissipation

| | |
|------|--------|
| 150 | 200 mW |
| 151A | 135 mW |
- Alternate Military/Aerospace device (54150, 54151A) is available. Contact a National Semiconductor Sales Office/Distributor for specifications.

Connection Diagrams

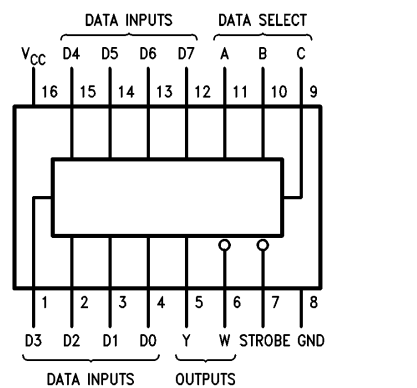
NOTE: STROBE is ACTIVE LOW!

Dual-In-Line Package



Order Number 54150DQMB, 54150FMQB,
DM54150J or DM74150N
See NS Package Number J24A, N24A or W24C

Dual-In-Line Package



Order Number 54151ADMQB, 54151AFMQB,
DM54151AJ, DM54151AW or DM74151AN
See NS Package Number J16A, N16E or W16A