# MC14502B

# Strobed Hex Inverter/Buffer

The MC14502B is a strobed hex buffer/inverter with 3–state outputs, an inhibit control, and guaranteed TTL drive over the temperature range. The 3–state output simplifies design by allowing a common bus.

- Separate Output Disable Control
- 3–State Output
- Supply Voltage Range = 3.0 Vdc to 18 Vdc
- Capable of Driving 4LSTTL Loads Over the Rated Temperature Range

**L SUFFIX**
CERAMIC
CASE 620

**P SUFFIX**
PLASTIC
CASE 648

**DW SUFFIX**
SOIC
CASE 751G

### ORDERING INFORMATION

MC14XXXBCP    Plastic
MC14XXXBCL    Ceramic
MC14XXXBDW    SOIC

$T_A = -55°$ to 125°C for all packages.

**MAXIMUM RATINGS\*** (Voltages Referenced to $V_{SS}$)

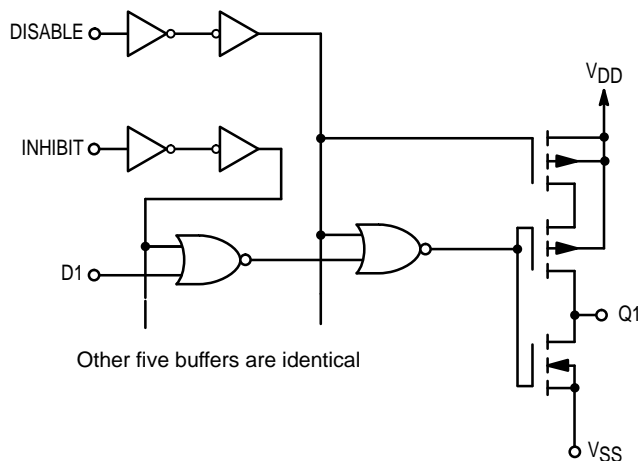| Symbol | Parameter | Value | Unit |
|---|---|---|---|
| $V_{DD}$ | DC Supply Voltage | $-0.5$ to $+18.0$ | V |
| $V_{in}, V_{out}$ | Input or Output Voltage (DC or Transient) | $-0.5$ to $V_{DD} + 0.5$ | V |
| $I_{in}$ | Input Current (DC or Transient), per Pin | $\pm 10$ | mA |
| $I_{out}$ | Output Current (DC or Transient), per Pin | $+30$ | mA |
| $P_D$ | Power Dissipation, per Package† | 500 | mW |
| $T_{stg}$ | Storage Temperature | $-65$ to $+150$ | °C |
| $T_L$ | Lead Temperature (8–Second Soldering) | 260 | °C |

\* Maximum Ratings are those values beyond which damage to the device may occur.
†Temperature Derating:
    Plastic "P and D/DW" Packages: $-7.0$ mW/°C From 65°C To 125°C
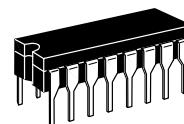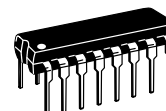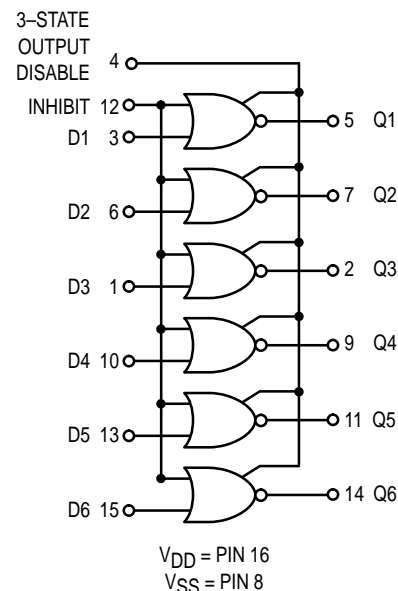    Ceramic "L" Packages: $-12$ mW/°C From 100°C To 125°C

### CIRCUIT DIAGRAM



Other five buffers are identical

### LOGIC DIAGRAM



$V_{DD}$ = PIN 16
$V_{SS}$ = PIN 8

### TRUTH TABLE

| $D_n$ | Inhibit | Disable | $Q_n$ |
|---|---|---|---|
| 0 | 0 | 0 | 1 |
| 1 | 0 | 0 | 0 |
| X | 1 | 0 | 0 |
| X | X | 1 | High Impedance |

X = Don't Care

**MOTOROLA**

"Searchdatasheets provides users with one of the Internet's most complete sources for obsolete datasheets," said Ariel Zriel, President, Market Maker Systems.
As the life-cycle of components is shortened by the constant demand for faster and better technology, electronics parts are being rendered obsolete at an unprecedented rate. Searchdatasheets gathers and stores the fact sheets, which explain how to use those components.

"Once a component manufacturer decides to eliminate a component datasheet from its web site," said Zriel, "we take over and list it along with the millions of other datasheets that our users can quickly access."

Users can perform standard searches for datasheets, or use the cross-reference search option if they want to find a compatible part from another manufacturer. Searchdatasheets also informs its users when parts are going to become obsolete, providing them with timely product change notification (PCN), product discontinuation notices (PDN) and end of life (EOL) notification.

Searchdatasheets is the only database of its kind that has components engineers onstaff.

That means users can count on assistance from qualified personnel when performing cross-reference searches. Searchdatasheets engineers also regularly research and add and new datasheets to the system.

"We have full-time Engineers on-staff to research and add datasheets if the information is not currently on our site," said Zriel. "We are providing a place for users to have their questions answered quickly. Our aim is to build a community for components engineers who need help in product design."

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