

HD74LS366A

Hex Bus Drivers (with three-state outputs)

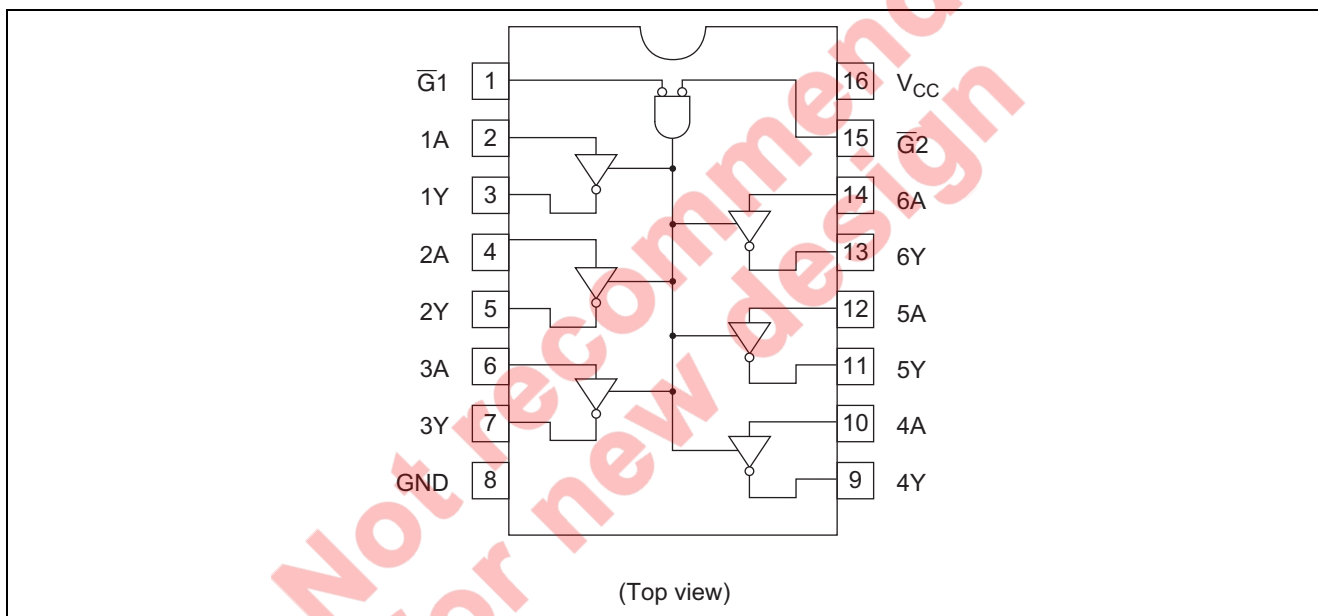
REJ03D0479-0300
Rev.3.00
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Features

- Ordering Information

| Part Name | Package Type | Package Code (Previous Code) | Package Abbreviation | Taping Abbreviation (Quantity) |
|----------------|--------------------|------------------------------|----------------------|--------------------------------|
| HD74LS366AFPEL | SOP-16 pin (JEITA) | PRSP0016DH-B (FP-16DAV) | FP | EL (2,000 pcs/reel) |

Pin Arrangement



Function Table

| Inputs | | | Output |
|------------------|------------------|---|--------|
| \overline{G}_1 | \overline{G}_2 | A | Y |
| H | X | X | Z |
| X | H | X | Z |
| L | L | H | L |
| L | L | L | H |

Note: H; high level, L; low level, X; irrelevant, Z; off (high-impedance) state of a 3-state output

Absolute Maximum Ratings

| Item | Symbol | Ratings | Unit |
|----------------------------|--------------|-------------|------|
| Supply voltage | V_{CC} | 7 | V |
| Input voltage | V_{IN} | 7 | V |
| Output voltage (off-state) | $V_{O(off)}$ | 5.5 | V |
| Power dissipation | P_T | 400 | mW |
| Operating temperature | T_{opr} | -20 to +75 | °C |
| Storage temperature | T_{stg} | -65 to +150 | °C |

Note: Voltage value, unless otherwise noted, are with respect to network ground terminal.

Recommended Operating Conditions

| Item | Symbol | Min | Typ | Max | Unit |
|-----------------------|-----------|------|------|------|------|
| Supply voltage | V_{CC} | 4.75 | 5.00 | 5.25 | V |
| Output current | I_{OH} | — | — | -2.6 | mA |
| | I_{OL} | — | — | 24 | mA |
| Operating temperature | T_{opr} | -20 | 25 | 75 | °C |

Electrical Characteristics

($T_a = -20$ to $+75$ °C)

| Item | Symbol | min. | typ.* | max. | Unit | Condition |
|------------------------------|------------------|----------|-------|------|------------------|---|
| Input voltage | V_{IH} | 2.0 | — | — | V | |
| | V_{IL} | — | — | 0.8 | | |
| Output voltage | V_{OH} | 2.4 | — | — | V | $V_{CC} = 4.75$ V, $V_{IH} = 2$ V, $V_{IL} = 0.8$ V, $I_{OH} = -2.6$ mA |
| | V_{OL} | — | — | 0.5 | | |
| | | — | — | 0.4 | $I_{OL} = 12$ mA | |
| Output current | I_{OZH} | — | — | 20 | μ A | $V_O = 2.4$ V $V_O = 0.4$ V |
| | I_{OZL} | — | — | -20 | | |
| Input current | A inputs | I_{IH} | — | 20 | μ A | $V_{CC} = 5.25$ V, $V_I = 2.7$ V |
| | | I_{IL} | — | -20 | μ A | $V_{CC} = 5.25$ V, $V_I = 0.5$ V, Either \bar{G} inputs = 2 V |
| | \bar{G} inputs | I_{IL} | — | -0.4 | mA | $V_{CC} = 5.25$ V, $V_I = 0.4$ V, Both \bar{G} inputs = 0.4 V |
| | | I_I | — | -0.4 | mA | $V_{CC} = 5.25$ V, $V_I = 0.4$ V |
| | | I_I | — | 0.1 | mA | $V_{CC} = 5.25$ V, $V_I = 7$ V |
| Short-circuit output current | I_{OS} | -40 | — | -225 | mA | $V_{CC} = 5.25$ V |
| Supply current | I_{CC}^{**} | — | 12 | 21 | mA | $V_{CC} = 5.25$ V |
| Input clamp voltage | V_{IK} | — | — | -1.5 | V | $V_{CC} = 4.75$ V, $I_{IN} = -18$ mA |

Notes: * $V_{CC} = 5$ V, $T_a = 25$ °C

** I_{CC} is measured with data inputs grounded and output control inputs at 4.5 V.

Switching Characteristics

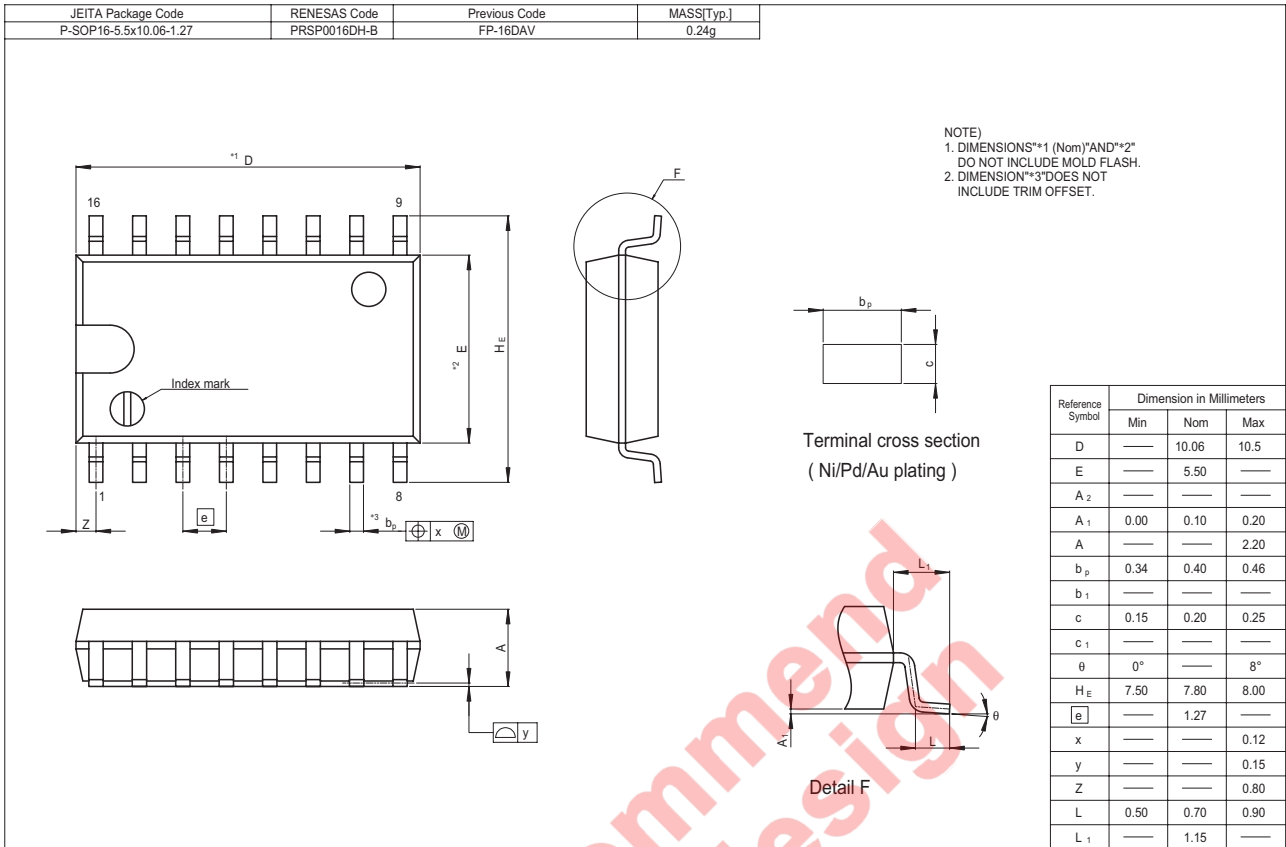
(V_{CC} = 5 V, T_a = 25°C)

| Item | Symbol | min. | typ. | max. | Unit | Condition |
|------------------------|------------------|------|------|------|------|--|
| Propagation delay time | t _{PLH} | — | 7 | 15 | ns | C _L = 45 pF, R _L = 667 Ω |
| | t _{PHL} | — | 12 | 18 | | |
| Output enable time | t _{ZH} | — | 18 | 35 | | |
| | t _{ZL} | — | 28 | 45 | | |
| Output disable time | t _{HZ} | — | — | 32 | | C _L = 5 pF, R _L = 667 Ω |
| | t _{LZ} | — | — | 35 | | |

Note: Refer to Test Circuit and Waveform of the Common Item "TTL Common Matter (Document No.: REJ27D0005-0100)".

Not recommend
for new design

Package Dimensions



Not recommended for new design

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