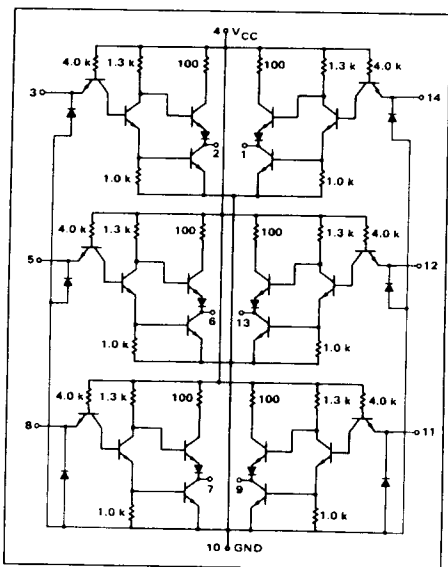


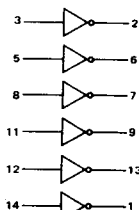
HEX INVERTER

MTTL I MC500/400 series

MC525 · MC575
MC425 · MC475



The Hex Inverter offers six independent inverting gates in a single package. Each gate consists of a single input driving an output inverter.



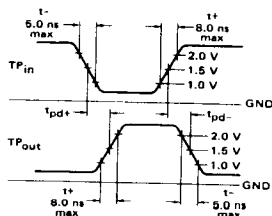
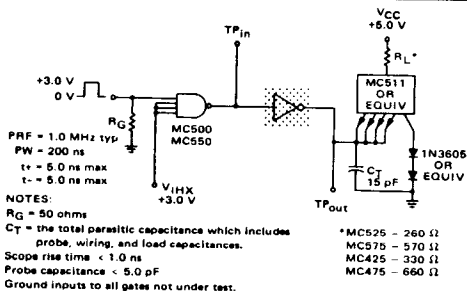
Positive Logic: 2 = $\bar{3}$

Total Power Dissipation = 90 mW typ/pkg
Propagation Delay Time = 10 ns typ

| TYPE NO. | INPUT LOADING FACTOR (I_{IF}) | OUTPUT DRIVE (I_{OL}) | TEMPERATURE RANGE |
|----------------|-----------------------------------|---|-------------------|
| MC525 MC575 | 1 (-1.33 mA) | 15 7 MC500 series Gates (20 mA) MC500 series Gates (10 mA) | -55°C to +125°C |
| MC425 MC475 | 1 (-1.66 mA) | 12 6 MC400 series Gates (20 mA) MC400 series Gates (10 mA) | 0°C to +75°C |

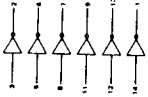
SWITCHING TIME TEST CIRCUIT

VOLTAGE WAVEFORMS AND DEFINITIONS



MC525, MC575/MC425, MC475 (continued)

ELECTRICAL CHARACTERISTICS
 procedures are shown for only one of the device. To complete testing, run through remaining inputs in a random manner.



| Characteristic | Symbol | TEST CONDITIONS | | | | | | | | | | | Unit | | | | |
|-------------------|-----------------------|--------------------|---------|---------|---------|-------|----------|----------|----------|----------|----------|----------|------|-----------|-----|-----|-----|
| | | mA | | | | | Volts | | | | | | | | | | |
| | | @ Test Temperature | | | | | | | | | | | | | | | |
| | | I_{OL} | Pr. Std | Pr. Std | I_{m} | V_R | V_{m1} | V_{m2} | V_{m3} | V_{m4} | V_{m5} | V_{CC} | | V_{CCK} | | | |
| DC Current | I_F | 3 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | I_R | 3 | 100 | 100 | 100 | 100 | - | - | - | - | - | - | - | - | - | - | - |
| | Flow Voltage | 3 | 5.5 | 5.5 | 5.5 | 5.5 | - | - | - | - | - | - | - | - | - | - | - |
| Voltage | $V_{out}^{(0)}$ | 2 | 0.45 | 0.45 | 0.45 | 0.45 | - | - | - | - | - | - | - | - | - | - | - |
| | $V_{out}^{(1)}$ | 2 | 2.5 | 2.4 | 2.7 | 2.5 | 2.4 | - | - | - | - | 3 | - | - | - | - | 10 |
| | Load Current | 2 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| Voltage | V_{OL} | 2 | 0.40 | 0.40 | 0.40 | 0.40 | 0.40 | - | - | - | - | - | - | - | - | - | - |
| | V_{OH} | 2 | 2.6 | 3.2 | 3.35 | 3.0 | 3.1 | 3.15 | - | - | - | - | - | - | - | - | - |
| | Requirements (Device) | 4 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Supply Current | I_{max} | 4 | - | 30 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | I_{DIB} | 4 | 36 | 36 | 36 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| | I_{DOL} | 4 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| Timing Parameters | t_{pd} | 3, 2 | - | - | 20 | - | - | - | - | - | - | - | - | - | - | - | - |
| | t_{f1} | 3, 2 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - |
| | t_r | 3, 2 | - | 8.0 | - | 8.0 | - | 8.0 | - | 8.0 | - | 8.0 | - | 8.0 | - | 8.0 | - |
| Timing Parameters | t_{set} | 3, 2 | - | 5.0 | - | 5.0 | - | 5.0 | - | 5.0 | - | 5.0 | - | 5.0 | - | 5.0 | - |
| | t_{del} | 3, 2 | - | - | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - |
| | t_{ack} | 3, 2 | - | - | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - |
| Timing Parameters | t_{set} | 3, 2 | - | - | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - |
| | t_{del} | 3, 2 | - | - | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - |
| | t_{ack} | 3, 2 | - | - | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - | 20 | - |

Pin-Out
 Outputs to state not under test during ALL tests unless otherwise noted.
 Limits to all parts must be unrounded.