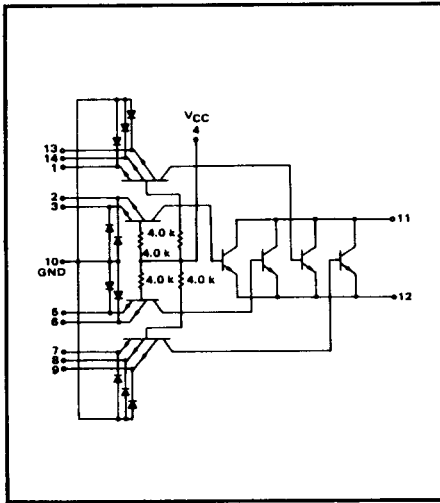


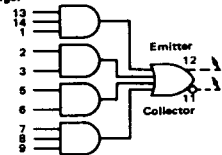
4-WIDE 3-2-2-3 INPUT
EXPANDER FOR
"AND-OR-INVERT" GATES

MTTL I MC500/400 series

MC509 · MC559
MC409 · MC459



This device consists of two 2-input and two 3-input AND gates ORed together with the common ORing nodes made available as the output. The basic expandable gate can be expanded up to 10 AND gates by using the MC509 series or the MC510 series expander package.



Total Power Dissipation = 20 mW/pkg.

Propagation Delay Time:

$\Delta t_{pd} = +4.0$ ns typ (1.0 ns per ORed function)
When added to the expandable "AND-OR-INVERT" gates.

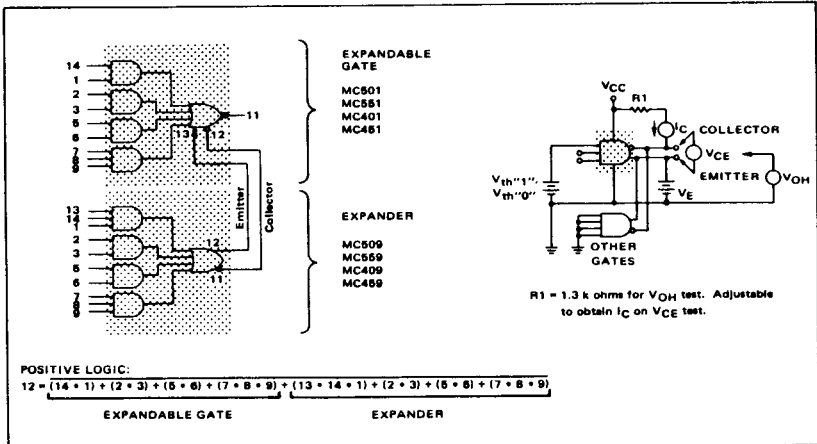
$\Delta t_{pd}/pF = 1.0$ ns/pF typ
Caused by additional capacitance at expansion points.

TYPE NO.	INPUT LOADING FACTOR (If)	TEMPERATURE RANGE
MC509	1 (-1.33 mA)	-66°C to +126°C
MC409	1 (-1.66 mA)	0°C to +75°C

Full output loading factor of the expandable gate is maintained.

APPLICATION: EXPANDABLE 4-WIDE "AND-OR-INVERT" GATE WITH A 4-WIDE 3-2-2-3 INPUT EXPANDER CONNECTED.

V_{CE}, V_{OH} TEST CIRCUIT



R1 = 1.3 k ohms for V_{OH} test. Adjustable to obtain I_C on V_{CE} test.

