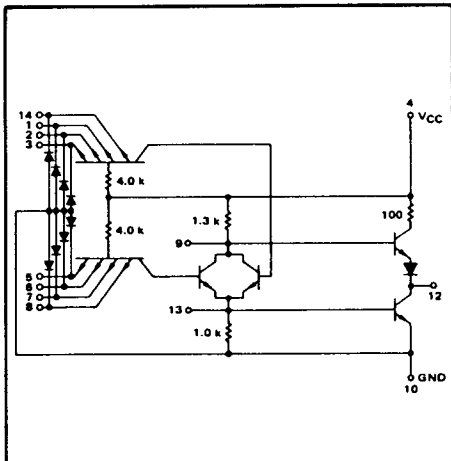


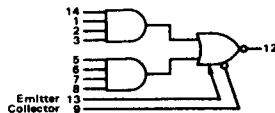
EXPANDABLE 2-WIDE 4-INPUT  
"AND-OR-INVERT" GATE

MTTL I MC500/400 series

MC505 · MC555  
MC405 · MC455



This device consists of two 4-input AND gates ORed together and driving an output inverter. The ORING nodes are available for expansion and up to 10 AND gates can be ORed together using the MC509 or MC510 series expanders. Care should be taken to minimize the amount of capacitance on the expander terminals in order to maintain switching speeds.



Positive Logic:

$$12 = (1 + 2 + 3 + 14) + (5 + 6 + 7 + 8) + (\text{Expanders})$$

Negative Logic:

$$12 = (1 + 2 + 3 + 14) + (5 + 6 + 7 + 8) + (\text{Expanders})$$

Total Power Dissipation = 20 mW typ/pkg  
Propagation Delay Time = 12 ns typ

TYPE NO.	INPUT LOADING FACTOR	(I <sub>F</sub> )	OUTPUT DRIVE	(I <sub>OL</sub> )	TEMPERATURE RANGE
MC505 MC555	1	(-1.33 mA)	15 MC500 series Gates 7 MC500 series Gates	(20 mA) (10 mA)	-55°C to +125°C
MC400 MC450	1	(-1.88 mA)	12 MC400 series Gates 6 MC400 series Gates	(20 mA) (10 mA)	0° to +75°C

SWITCHING TIME TEST CIRCUIT

VOLTAGE WAVEFORMS AND DEFINITIONS

