

MC14507

QUAD EXCLUSIVE "OR" GATE

The MC14507 quad exclusive OR gate is constructed with MOS P-channel and N-channel enhancement mode devices in a single monolithic structure. These complementary MOS logic gates find primary use where low power dissipation and/or high noise immunity is desired.

- Quiescent Current = 0.5 nA/package typical @ 5 Vdc
- Noise Immunity = 45% of V_{DD} typical
- Diode Protection on All Inputs
- Supply Voltage Range = 3.0 Vdc to 18 Vdc
- Single Supply Operation Positive or Negative
- High Fanout >50
- Input Impedance = 1012 ohms typical
- · Logic Swing Independent of Fanout

MAXIMUM RATINGS (Voltages referenced to V_{SS})

Rating	Symbol	Value	Unit
DC Supply Voltage	V _{DD}	-0.5 to +18	Vdc
Input Voltage, All Inputs	Vin	-0.5 to V _{DD} + 0.5	Vdc
DC Current Drain per Pin	1	10	mAdc
Operating Temperature Range — AL Device CL/CP Device	Тд	-55 to +125 -40 to +85	°C
Storage Temperature Range	T _{stg}	-65 to +150	°C

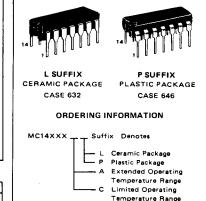
NOTE:

Not Recommended for New Designs. Use MC14070B as a Direct Replacement.

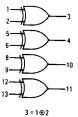
McMOS SSI

(LOW-POWER COMPLEMENTARY MOS)

QUAD EXCLUSIVE "OR" GATE



LOGIC DIAGRAM POSITIVE LOGIC



V_{DD} = Pin 14 V_{SS} = Pin 7