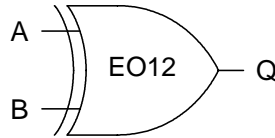


EO12 is a 2-input EXCLUSIVE-OR (XOR) gate with 2x drive strength.

### Truth Table

| A | B | Q |
|---|---|---|
| L | L | L |
| L | H | H |
| H | L | H |
| H | H | L |



### Capacitance

|   | Ci (pF) |
|---|---------|
| A | 0.112   |
| B | 0.128   |

### Area

1.22 mils<sup>2</sup>

### Power

10.92 μW/MHz

Delay [ns] = tpd.. = f(SL, L)      with SL = Input Slope [ns] ; L = Output Load [pF]  
 Output Slope [ns] = op\_sl.. = f(L)      with L = Output Load [pF]

AC Characteristics : Tj = 25°C    VDD = 5V    Typical Process

### AC Characteristics

| Characteristics     | Symbol      | SL = 0.1 |         |         | SL = 2.0 |         |         |
|---------------------|-------------|----------|---------|---------|----------|---------|---------|
|                     |             | L = 0.2  | L = 1.4 | L = 2.0 | L = 0.2  | L = 1.4 | L = 2.0 |
| Delay A to Q        | tpd_ar_qr   | 0.52     | 1.40    | 1.85    | 0.73     | 1.60    | 2.05    |
|                     | tpd_af_qr   | 0.30     | 1.22    | 1.67    | 0.37     | 1.23    | 1.66    |
|                     | tpd_ar_qf   | 0.22     | 0.90    | 1.29    | 0.38     | 1.07    | 1.38    |
|                     | tpd_af_qf   | 0.61     | 1.50    | 1.92    | 0.85     | 1.74    | 2.17    |
| Delay B to Q        | tpd_br_qr   | 0.59     | 1.48    | 1.94    | 0.82     | 1.71    | 2.15    |
|                     | tpd_bf_qr   | 0.32     | 1.23    | 1.69    | 0.46     | 1.28    | 1.70    |
|                     | tpd_br_qf   | 0.23     | 0.92    | 1.30    | 0.26     | 0.91    | 1.23    |
|                     | tpd_bf_qf   | 0.68     | 1.56    | 1.98    | 0.77     | 1.65    | 2.09    |
| Output Slope A to Q | op_sl_ar_qr | 0.85     | 3.68    | 5.08    | 0.83     | 3.70    | 5.16    |
|                     | op_sl_af_qr | 0.75     | 3.80    | 5.23    | 1.08     | 3.82    | 5.32    |
|                     | op_sl_ar_qf | 0.58     | 2.61    | 3.76    | 1.13     | 2.86    | 3.78    |
|                     | op_sl_af_qf | 0.67     | 2.97    | 4.08    | 0.67     | 2.98    | 4.13    |
| Output Slope B to Q | op_sl_br_qr | 0.80     | 3.76    | 5.33    | 0.81     | 3.77    | 5.23    |
|                     | op_sl_bf_qr | 0.81     | 3.70    | 5.22    | 1.17     | 3.75    | 5.18    |
|                     | op_sl_br_qf | 0.58     | 2.62    | 3.71    | 1.07     | 2.72    | 3.77    |
|                     | op_sl_bf_qf | 0.66     | 2.87    | 4.11    | 0.65     | 2.97    | 4.11    |