

SCL4015B

DUAL FOUR STAGE SHIFT REGISTER

STATIC CHARACTERISTICS: (V_{SS} = 0 V)

| PARAMETER | CONDITIONS | V _{DD} (Vdc) | T _{LOW} * | | + 25°C | | | T _{HIGH} ** | | UNIT |
|--|--|--------------------------|--------------------|-----|--------|------|-----|----------------------|-----|------|
| | | | MIN | MAX | MIN | TYP | MAX | MIN | MAX | |
| QUIESCENT DEVICE CURRENT I _{DD} | V _{IN} = V _{SS} OR V _{DD} | 5 | | 5 | | 0.05 | 5 | | 150 | μAdc |
| | | 10 | | 10 | | 0.1 | 10 | | 300 | |
| | | 15 | | 15 | | 0.2 | 20 | | 600 | |

Note: *T_{LOW} = -55°C for C / H devices, -40°C for E / S devices, **T_{HIGH} = +125°C for C / H devices, +85°C for E / S devices.

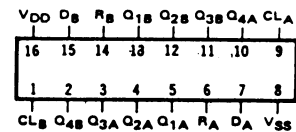
DYNAMIC CHARACTERISTICS: (CL = 50pF, TA = 25°C)

| PARAMETER | V _{DD} Vdc | MINIMUM | TYPICAL | MAXIMUM | UNIT |
|--|------------------------|---------|---------|---------|------|
| PROPAGATION DELAY TIME t _{PLH} , t _{PHL} | 5 | | 250 | 500 | ns |
| | 10 | | 100 | 200 | |
| | 15 | | 90 | 180 | |
| OUTPUT TRANSITION TIME t _{TLH} , t _{THL} | 5 | | 100 | 200 | ns |
| | 10 | | 50 | 100 | |
| | 15 | | 40 | 80 | |
| CLOCK PULSE WIDTH MINIMUM PW _{CL} | 5 | | 200 | 400 | ns |
| | 10 | | 100 | 200 | |
| | 15 | | 80 | 160 | |
| CLOCK FREQUENCY MAXIMUM f _{CL} | 5 | 1.25 | 2.5 | | MHz |
| | 10 | 2.5 | 5 | | |
| | 15 | 3 | 6 | | |
| CLOCK RISE & FALL TIME MAXIMUM t _{rCL} , t _{fCL} | 5 | 15 | | | μs |
| | 10 | 15 | | | |
| | 15 | 5 | | | |
| DATA INPUT/SETUP TIME MINIMUM t _{set} | 5 | | 150 | 300 | ns |
| | 10 | | 50 | 100 | |
| | 15 | | 40 | 80 | |
| DATA INPUT HOLD TIME MINIMUM t _{hold} | 5 | | 0 | 50 | ns |
| | 10 | | 0 | 25 | |
| | 15 | | 0 | 15 | |

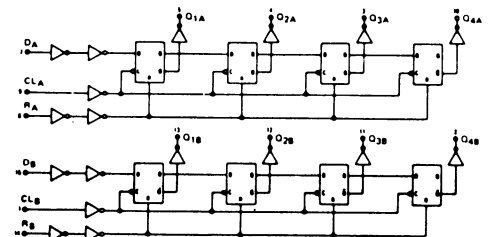
RESET OPERATIONS

| | | | | | |
|---|----|--|-----|-----|----|
| PROPAGATION DELAY TIME t _{PHL} | 5 | | 200 | 400 | ns |
| | 10 | | 100 | 200 | |
| | 15 | | 90 | 180 | |
| RESET PULSE WIDTH MINIMUM PW _R | 5 | | 200 | 400 | ns |
| | 10 | | 80 | 160 | |
| | 15 | | 60 | 120 | |
| RESET REMOVAL TIME t _{rem} | 5 | | 375 | 750 | ns |
| | 10 | | 125 | 250 | |
| | 15 | | 100 | 200 | |

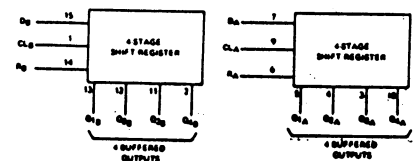
CONNECT DIAGRAM



LOGIC DIAGRAM

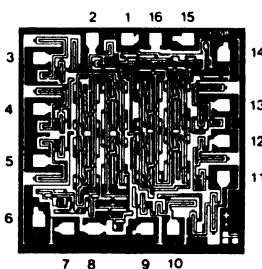


BLOCK DIAGRAM



DIE DRAWING

SCL4015B
70 x 70 mils



Note: Refer to "SCL4000B SERIES FAMILY SPECIFICATIONS" for remaining Dynamic & Static Characteristics, and, for recommended and maximum operating conditions.