

SCL4047B

MONOSTABLE/ASTABLE MULTIVIBRATOR

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

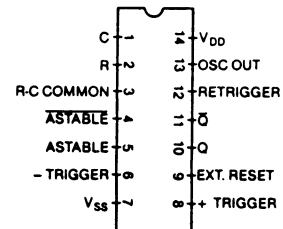
| PARAMETER | CONDITIONS | V_{DD} (Vdc) | T_{LOW}^* | | +25°C | | | T_{HIGH}^{**} | | UNIT |
|-----------------------------------|-------------------------------|-------------------|-------------|-----|-------|--------|-----|-----------------|-----|--------------|
| | | | MIN | MAX | MIN | TYP | MAX | MIN | MAX | |
| QUIESCENT DEVICE CURRENT I_{DD} | $V_{IN} = V_{SS}$ OR V_{DD} | 5 | | 1 | | 0.0005 | 1 | | 30 | μA_{dc} |
| | | 10 | | 2 | | 0.001 | 2 | | 60 | |
| | | 15 | | 4 | | 0.002 | 4 | | 120 | |

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.

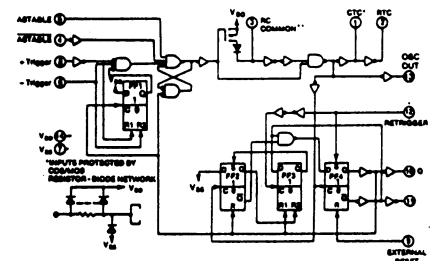
DYNAMIC CHARACTERISTICS: ($C_L = 50pF, T_A = 25^\circ C$)

| PARAMETER | V_{DD} Vdc | MINIMUM | TYPICAL | MAXIMUM | UNIT |
|--|-----------------|---------|---------|---------|---------|
| PROPAGATION DELAY TIME t_{PLH}, t_{PHL} (ASTABLE TO OSC OUT) | 5 | | 200 | 400 | ns |
| | 10 | | 100 | 200 | |
| | 15 | | 80 | 160 | |
| PROPAGATION DELAY TIME t_{PLH}, t_{PHL} (ASTABLE, ASTABLE TO Q Q) | 5 | | 550 | 900 | ns |
| | 10 | | 250 | 500 | |
| | 15 | | 200 | 400 | |
| PROPAGATION DELAY TIME t_{PLH}, t_{PHL} (+ TRIGGER, -TRIGGER TO Q Q) | 5 | | 700 | 1200 | ns |
| | 10 | | 300 | 600 | |
| | 15 | | 240 | 480 | |
| PROPAGATION DELAY TIME t_{PLH}, t_{PHL} (+ TRIGGER, RETRIGGER TO Q Q) | 5 | | 300 | 600 | ns |
| | 10 | | 175 | 300 | |
| | 15 | | 150 | 250 | |
| PROPAGATION DELAY TIME t_{PLH}, t_{PHL} (RESET TO Q Q) | 5 | | 300 | 500 | ns |
| | 10 | | 125 | 250 | |
| | 15 | | 100 | 200 | |
| OUTPUT TRANSITION TIME t_{TLH}, t_{THL} (Q, Q, OSC OUT) | 5 | | 100 | 200 | ns |
| | 10 | | 50 | 100 | |
| | 15 | | 40 | 80 | |
| INPUT PULSE DURATION MINIMUM t_{WL}, t_{WH} | 5 | | 500 | 1000 | ns |
| | 10 | | 200 | 400 | |
| | 15 | | 160 | 320 | |
| RISE & FALL TIME (+ TRIGGER, RETRIGGER) t_{RCL}, t_{FCL} | 5 | | | 15 | μs |
| | 10 | | | 5 | |
| | 15 | | | 5 | |
| INPUT CAPACITANCE (AVG) | | | 5 | 7.5 | pF |

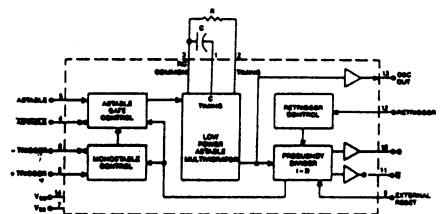
CONNECT DIAGRAM



LOGIC DIAGRAM

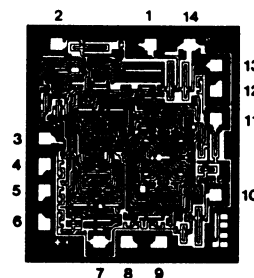


BLOCK DIAGRAM



DIE DRAWING

66 x 74 mils



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