

# DM5496/DM7496(SN5496/SN7496) 5-bit shift register

## general description

The DM5496/DM7496 may be used as a serial-to-parallel converter, parallel-to-serial converter, or storage register. Inputs and outputs of the five R-S master-slave flip-flops are accessible, permitting parallel-in/parallel-out and serial-in/serial-out operation, as well as serial/parallel conversions. Key features include:

- Typical propagation delay of 25 ns
- Minimum clock pulse width of 35 ns
- Fanout of 10
- Multifunction capability
- Expansion to N bits as register or converter.

## operation

A logical "0" voltage applied to the clear input simultaneously sets all flip-flops to the "0" state

independent of the clock input state. Any flip-flops may be set independently to "1" by "1" inputs on the common preset input and on the preset inputs of the specific flip-flops to be set. Preset is also independent of clock state.

Information is transferred to the output pins when the clock input goes from a logical "0" to a logical "1". The clear input must be at "1" and the preset input at "0" when clocking occurs. Since the flip-flops are R-S master-slave type, the proper information must appear at the R-S inputs before the clock edge rises. The serial input provides this information to the first flip-flop and the flip-flop outputs provide the information to the remaining R-S inputs.

## connection diagram

