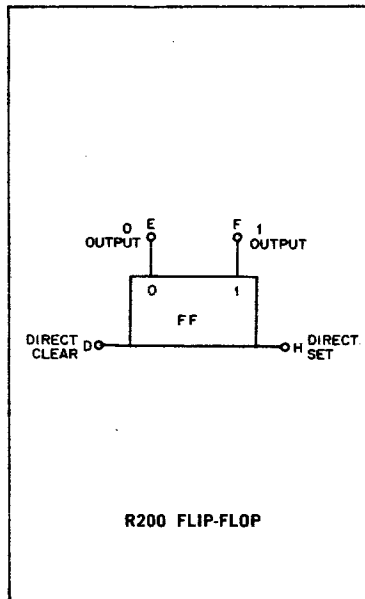


# FLIP-FLOP TYPE R200

# R SERIES



The R200 is a basic flip-flop for use in set-reset applications. It can be set and cleared at any frequency up to 2 mc. A set input makes the 1 output go to  $-3v$  and the 0 output to ground; a clear input makes the 0 output go to  $-3v$  and the 1 output to ground.

**INPUT: Direct Set and Clear** — A standard 100-nsec pulse or a ground level of 100 nsec minimum duration activates the input; the load at ground is 1 ma. When not in use, the direct set and clear terminals must be at  $-3v$ . If both inputs are held at ground, both outputs are at  $-3v$ . **Collector Triggering** — The flip-flop can also be set or cleared through its output by a diode gate or a diode network. The triggering circuit load is the external load on the output terminal being driven plus the internal load.

**OUTPUT:** Standard levels. Each output can drive 17 ma of external load at ground. The internal load is 4 ma. If more than 18 in. of wire is attached to an output, additional clamped loads (see the W002, W005) should be connected to decrease the output fall time. The load is sufficient if the positive transition at the opposite terminal reaches  $-1v$  within 80 nsec after the flip-flop is pulsed.

Note: Additional driving capability at  $-3v$  is required by some circuits outside the R series. Auxiliary clamped loads W002 and W005 are available for this purpose.

**POWER:**  $+10v(A)/0.3ma$ ,  $-15v(B)/16ma$ .