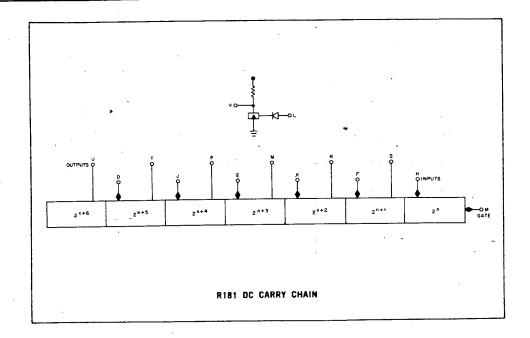
DC CARRY CHAIN TYPE R181

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The R181 DC Carry module is designed for building counters with no carry propagate delay. A 2-mc counter of any size, with all flip-flops switching simultaneously, can be constructed using the dc carry modules interconnected as in Figures 1 and 2 on the next page. The pulse amplifier interconnection of Figure 1 should be used between the first pair of dc carry modules. The dc carry interconnection of Figure 2 may be used between all following pairs of stages.

If the time between input count pulses is greater than 400+100(N-1) nsec (where N is the number of dc carry modules), the pulse amplifier connection is not necessary and the dc interconnection may be used between all dc carry modules.

The carry module contains an independent 1-input diode gate and six interconnected diode gates with

two, three, four, five, six, and seven inputs respectively. The outputs are all similar to the Type R107.

INPUT: Inputs are DEC standard levels. The input loads on Pins M and H are 6 ma each. The load on Pin F is 5 ma; on Pin K it is 4 ma; on Pin E, 3 ma, etc. The loads presented by Pins D and L are 1 ma each. All loads are at ground, there is no load at -3v.

OUTPUTS: Each output is at ground only when the input to the common gate and all inputs to gates of lesser significance are at -3 v. Each output circuit can supply 18 ma at ground and has an internal load of 2 ma.

POWER: +10 v(A)/0.7 ma, -15 v(B)/26.2 ma.