EXCLUSIVE OR
TYPE R131

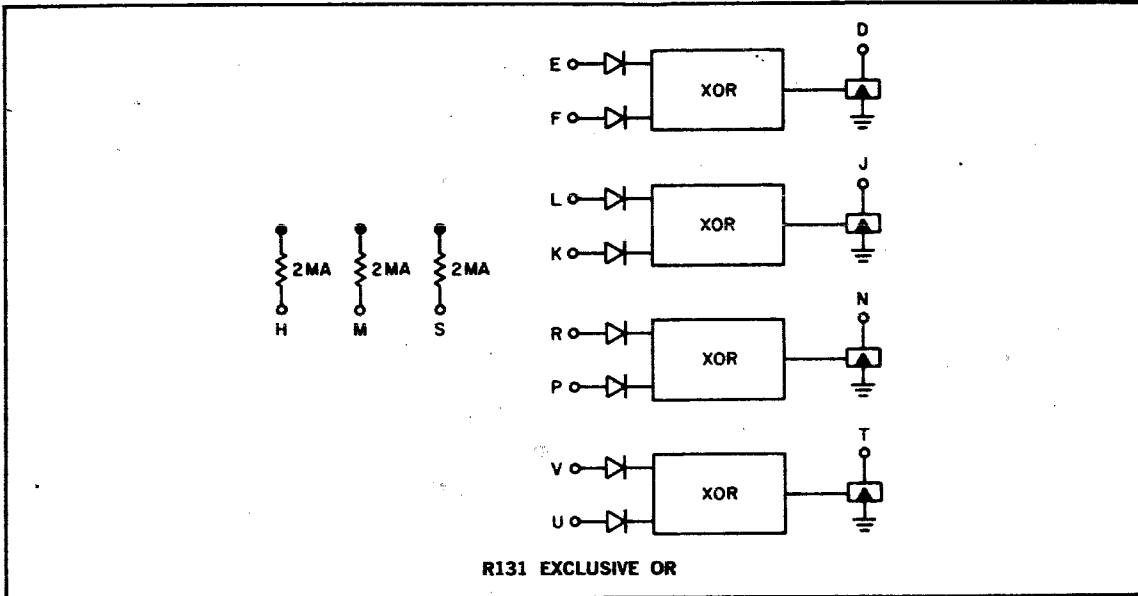**R131 EXCLUSIVE OR**

This module provides a convenient way to compare two binary numbers or patterns. The output of each circuit is negative if its inputs are the same, and ground if they are different. If the outputs of several circuits are tied together, the common output line will be negative if every input pair matches, ground if any pair doesn't match.

During the transition from one input pattern to another with the same output, there is an interval during which the R131 output may be wrong for both patterns. Transitions between unequal inputs have a relatively short settling time, but transitions between equal inputs may produce transients to ground lasting 250 nsec or more.

INPUTS: Standard levels of —3v and ground. Each input is a 2 ma load at ground.

OUTPUTS: Standard levels of —3v and ground. Each output can drive 18 ma at ground. Propagation delay for output rise is similar to R111 delay. Propagation delay for output fall is typically 300 nsec longer than R111 delay.

POWER: +10v(A)/0.8 ma; —15v(B)/36 ma.

TRUTH TABLE

Input E(K, P, U)	Output D(J, N, T)	Input F(L, R, V)
0v	0v	—3v
—3v	0v	0v
0v	—3v	0v
—3v	—3v	—3v