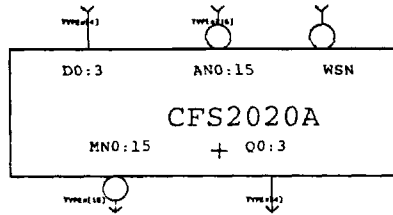


CFS2020A 16x4 CAM Without Mask

DESCRIPTION: CFS2020A is a 16-word X 4-bit content addressable memory (CAM) which is functionally identical to the Fairchild 100142 except that it has 16 words instead of four and has no mask function. Each word location has its own active-low address select line. In the read mode, data from the addressed location appear at the data output (Q0:3). In the write mode, when the write strobe (WSN) is low, data are stored in the selected location. Match comparisons are always made between input data and all the words in the CAM. No control signal is required for the match function. If a match compare results in a match, the match output (MN0:15) goes low.

LOGIC SYMBOL:



INPUTS (LOADING IN TRANSISTOR PAIRS):

D0:3(4), AN0:15(2), WSN(4)

OUTPUTS (DRIVE IN (#P, #N, )):

MN0:15(1, 0.25), Q0(1, 1)

GATE COUNT:

GATES USED = 722

AREA USED = 762

PROPAGATION DELAY\*:

OUTPUT INPUT	Q0:3	MN0:15
	NS	NS
AN0:15	5.4	8.5
D0:3	9.3	5.8
WSN	10.9	9

SET-UP AND HOLD TIME\*:

FROM INPUT	SET-UP TIME NS	HOLD TIME NS
AN0:15	0	3.8
D0:3	0.9	1.3

\* MINIMUM WSN WIDTH: 3.5 NS

\* 10K NOMINAL