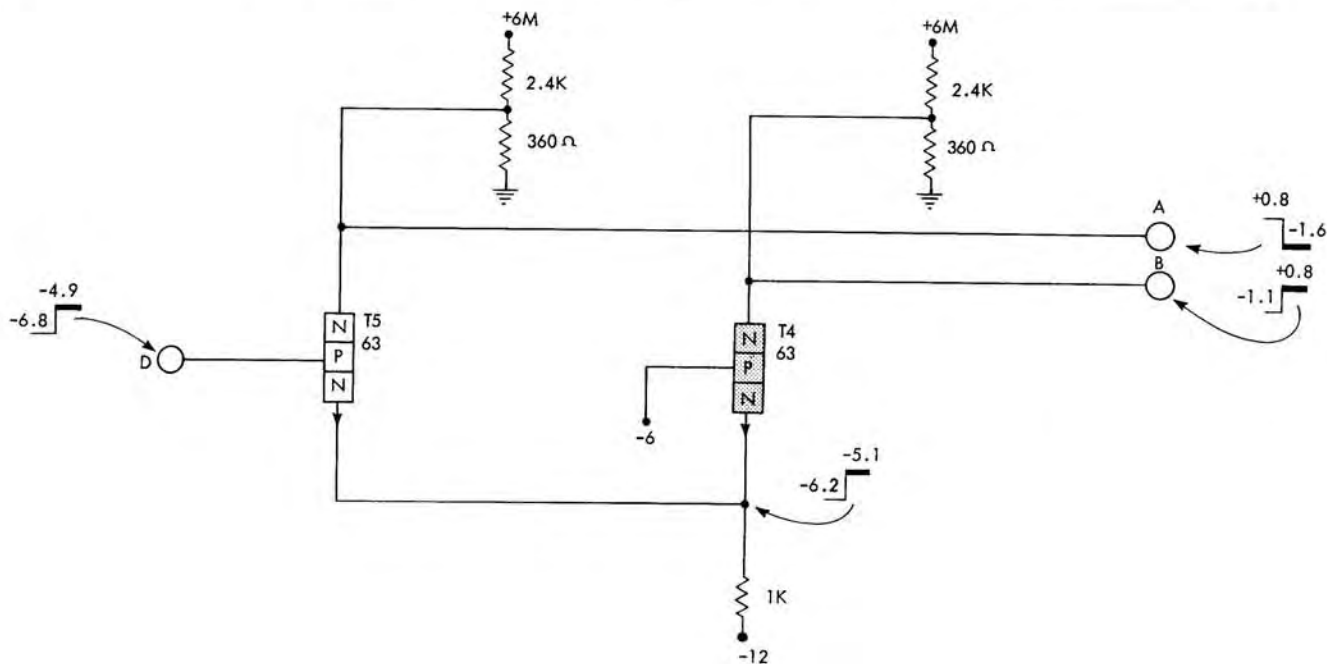
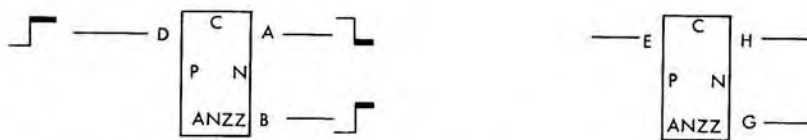


ANZX
ZY
ZZ
--



Card Code	Part No 37----	Cplg Network		Circuit Used as		Input Levels		In \emptyset Output		Out \emptyset Output		Ma Input		usec Delay Per			
		In \emptyset	Out \emptyset			Min.	Max.	Min.	Max.	Min.	Max.	In \emptyset	Out \emptyset	Block	100uu Load	Driven Base	
ANZZ	1209	Yes	Yes	C	CA	-5.6	See driver for max Output Levels	+0.4	+1.2	+0.4	+1.2						
ANZY	1210	Yes	No	TC		-6.4		-0.4	-2.5	-0.4	-3.0	Min.	4.82	5.31	.03	.02	.03
ANZX	1211	No	Yes									Nom.	6.0	7.6	.06	.025	.035
AN--	1212	No	No									Max.	7.3	10.2	.1	.03	.04

Current Mode P-to-N Converter

The P-to-N converter is a single-input logic block. It is fed by a P line and produces both an in-phase and out-of-phase output. For a -P line input, a -N in-phase output and a +N out-of-phase output results. It is used:

1. To translate from a P to an N line.
2. To obtain an N line inversion of the input sign, i.e., a +P to a -N or a -P to a +N.
3. As a current amplifier to drive other logic blocks.

Circuit Description

This circuit configuration is that of a one-way OR circuit (the input transistor T5 has its base-to-emitter PN diode returned to a negative supply, -12v). Its emitter drives into a grounded base amplifier T4 referenced to -6v. With the input at the -P level shown, the emitter line attempts to fall to the -P level. When the emitter of T4 falls below -6v it becomes forward-biased and clamps to the base potential of -6v. Output B is at a -N level

of -1.1v because of current flow (6ma) through T4 into its coupling network. Output A is at a +N level of 0.8v because of divider current through its coupling network.

When the input to T5 rises above -6v, the emitter line follows it and T4 is reverse-biased and cuts off. In this state, output B rises to a +N level because of divider current through its coupling network and output A falls to a -N level of -1.6v because of current flow (7.6ma) through T5 into its coupling network.

Application

For some applications, the circuit driven by this logic block requires a coupling network other than the 360 ohm and 2.4K resistors shown. In such cases, cap codes zx, zy, and -- are used as required (see chart). This circuit is also used as a converter within a trigger (TC) and in DOT functions as a CA.