



GZ-- 371510

Input Levels		Output Levels		Delays (usec)		Output Current
Min.	Max.	Min.	Max.	Per	Nom. Load	
-1.0	0.2	12.2	20.9	Turn On	Min. .35	715ma to 1250 ma
-8	-12.5	-5.2	-6.2		Max. .37	
				Turn Off	Min. 1.27	
					Max. 1.30	

**Read-In Driver**

The read-in driver supplies the necessary voltage and current outputs to set the magnetic cores of shift registers. Both the gate and signal U line inputs must be up to obtain a special core mode output.

The signal input at pin B is usually fed from a timing ring and has a pulse duration of 1μs. The gate input at pin A is normally on for a full digit time.

**Circuit Description**

A -U level at either the gate or signal input causes minimum current flow in T3. Emitter follower action of T3 and C9 couple the negative input to the base of the complementary emitter followers. T2 becomes forward-biased on and T1 becomes reverse-biased off. The complementary emitter follower output at this time is near -7.3v and holds T21 off. With the power diffused transistor off, the output at pin C is 19.3v. This positive output prevents read-in to the magnetic core shift register winding, as the load diode is reverse-biased and prevents

the flow of current through the windings.

When coincidence of +U levels occurs at pins A and B, T3 becomes more forward-biased and conducts much harder. The positive shift appearing at the emitter of T3 is coupled through C9 to the common base of T1 and T2. T2 is now reverse-biased off and T1 becomes forward-biased on. Complementary emitter follower action quickly increases the base voltage of T21 toward 0v. However, when the positive swing increases to near -5.7v, T21 becomes forward-biased and goes into heavy conduction. The output at pin C decreases to -6v. Read-in to the magnetic core windings can now occur because the load diodes are forward-biased and permit current to flow through the windings to discharge the capacitor storage units.

**Application**

This read-in driver can supply up to 1250ma to set a maximum of 25 magnetic cores. It can also serve as a "dump-line" to discharge 25 charged bus capacitors.