



CNWU 371258

| Input Level | | Output Level | | Delays* (usec) | Circuit Use | |
|-------------|--------|--------------|------|----------------|--------------------------------|------|
| Min. | Max. | Min. | Max. | | | |
| -0.5 | +0.2 | 1.44 | 3.1 | Load | C +CO -CA +TC +TCO | |
| -6 | -6 | 0 | 0 | | | Min. |
| -7.4 | -12.48 | -0.74 | -5.2 | Max. | .70 | .70 |
| | | | | Turn On | | |
| | | | | | | Min. |
| | | | | Max. | .34 | .60 |
| | | | | Turn Off | | |
| | | | | | | Min. |
| | | | | Max. | .34 | .60 |

*Function of capacitive loading and the number of CTDL blocks driven

CTDL U to T Converter

The CNWU card consists of four one-way NPN emitter follower circuits. Each circuit converts a U line input to an in-phase T line and provides the current amplification required to drive branching circuits.

Circuit Description

Operation is similar to that of the basic emitter follower. The input voltage divider network sets the base level so that T4 is always in conduction. When the input is up, the base voltage of T4 is near +2.6v and sets the output at pin A to approximately this voltage minus the base-emitter drop. Decreasing the input of pin D to -10v causes the base voltage to drop to -2.6v. The conduction through T4 decreases and the output at pin A follows the input swing (minus the base-emitter voltage drop). Capacitive loading and the number of blocks driven effect the circuit delays noted in the chart above.

Application

The logical functions performed by these circuits are indicated by the symbols listed in the chart labeled Circuit Use. These circuits provide current amplification of positive-going signals, serve as buffer devices to match impedances, or provide isolation without inversion. Additional flexibility is provided on this card for performing the DOT functions. With the emitters of circuits 3 and 4 returned to terminal pins, connections for sharing a common emitter load are easily made by back panel wiring. In the circuits illustrated above, the CO function is performed if pin H is wired to pin A. Considering positive logic, a +U level at either pin D or pin E will provide a +T output level. Circuits 3 and 4 also function as standard convert circuits by pack-panel wiring to their respective emitter resistors.