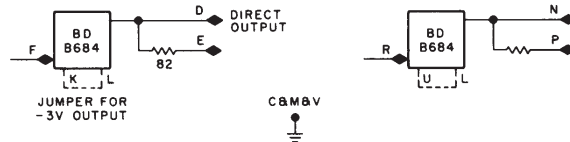


## B684 BUS DRIVER

Standard Size FLIP CHIP Module, 18 Pins



The B684 contains two dual-purpose, non-inverting bus drivers. Each bus driver provides standard DEC levels of  $-3\text{ V}$  and ground to a large number of diode gates and "inverter base loads" (an inverter base load is a load of  $-1\text{ mA}$  at  $-3\text{ V}$  and  $60\text{ pF}$ ). Alternatively, the bus driver will drive a terminated cable of  $90\ \Omega$  characteristic impedance.

**INPUTS:** Standard levels of  $-3\text{ V}$  and ground. Load is  $-1\text{ mA}$  at  $-3\text{ V}$ ,  $0\text{ mA}$  at ground. Input wiring must be kept relatively short (less than 3 ft).

**OUTPUTS:** Direct - Standard levels of  $-3\text{ V}$  and ground. The direct output will drive  $+40\text{ mA}$  at ground and  $-80\text{ mA}$  at  $-3\text{ V}$ . A  $100\ \Omega$  cable terminated at each end by  $100\ \Omega$  resistors to ground can be driven by this output. The level control pins must be jumpered when the direct output is used.

Resistor - Levels of ground and  $-6\text{ V}$  at the resistor output provide standard ground and  $-3\text{ V}$  levels at the end of a  $93\ \Omega$  cable terminated with  $100\ \Omega$  to ground. The terminated cable will drive  $\pm 10\text{ mA}$  at  $10\text{ MHz}$ . The level control pins must be left open when driving terminated cable from the resistor output.

For driving  $5\text{ mA}$  loads or less, an unterminated cable or open wire may be driven from the resistor output using ground and  $-3\text{ V}$  levels. This connection allows heavy local load and light distant loads on one circuit.

Typical delay through the bus driver is  $30\text{ ns}$ .

The output can be held at approximately ground, independent of the input and of power-on, power-off transients, by bringing the level control pin (K,U) to ground with the CROBAR relay contacts of an 844 Power Control (possibly through an isolating diode). Approximately  $50\text{ mA}$  is required.

POWER:

Pin	Voltage	Margin Range	Current
A	+10 V	+6 V to +20 V	80 mA <sup>1</sup>
B	-15 V	-12 V to -18 V	120 mA <sup>2</sup>
C, M, V			

Pins C, M, and V must all be grounded.

<sup>1</sup>Plus the current required to bring the loads to ground.

<sup>2</sup>Plus the current required to bring the loads negative.