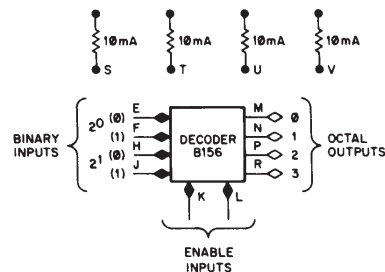


B156 HALF BINARY-TO-OCTAL DECODER

Standard Size FLIP CHIP Module, 18 Pins



The B156 module is used alone as a 2-bit decoder with two enable inputs, or it is used with another B156 to form a full 3-bit (binary-to-octal) decoder, with one combined enable line. Either way, each binary input combination results in one selected output held at ground if the decoder is enabled. No output will be selected if an enable input is held at ground. The decoder consists of four 4-input 2 mA diode gates with appropriate input connections. The B156 is often used as a high-speed decoder for unit-select or instruction-decoding applications.

INPUTS: Standard levels of -3 V and ground, with pulse widths of 40 ns or greater. Each diode gate within the decoder draws 2 mA at ground which is shared among the input diodes which are at ground. When used as a decoder, the binary inputs draw 3 mA or less. When two B156s are used as a full binary-to-octal decoder, the binary inputs draw 4.7 mA or less. The load at -3 V is less than -1 μ A for each diode input.

OUTPUTS: Standard levels of -3 V and ground. Each output can supply 26 mA at ground. Output TTT is 30 ns max. for rise and 45 ns max. for fall when driving five 2 mA diode gates, a 10 mA clamped load, and 3 in. of connecting wire. Typical propagation time is 13 ns.

Simultaneous switching of B156 outputs is not assured. If outputs are ORed together, the resultant output may contain spikes.

POWER:

Pin	Voltage	Margin Range	Current
A	+10 V	0 V to 20 V	.6 mA
B	-15 V	-10 V to - 20V	56 mA
C	ground		