

# 8-INPUT DIGITAL MULTIPLEXER

# 82S31 82S32

## ADVANCED INFORMATION

## DIGITAL 8000 SERIES SCHOTTKY TTL/MSI

### DESCRIPTION

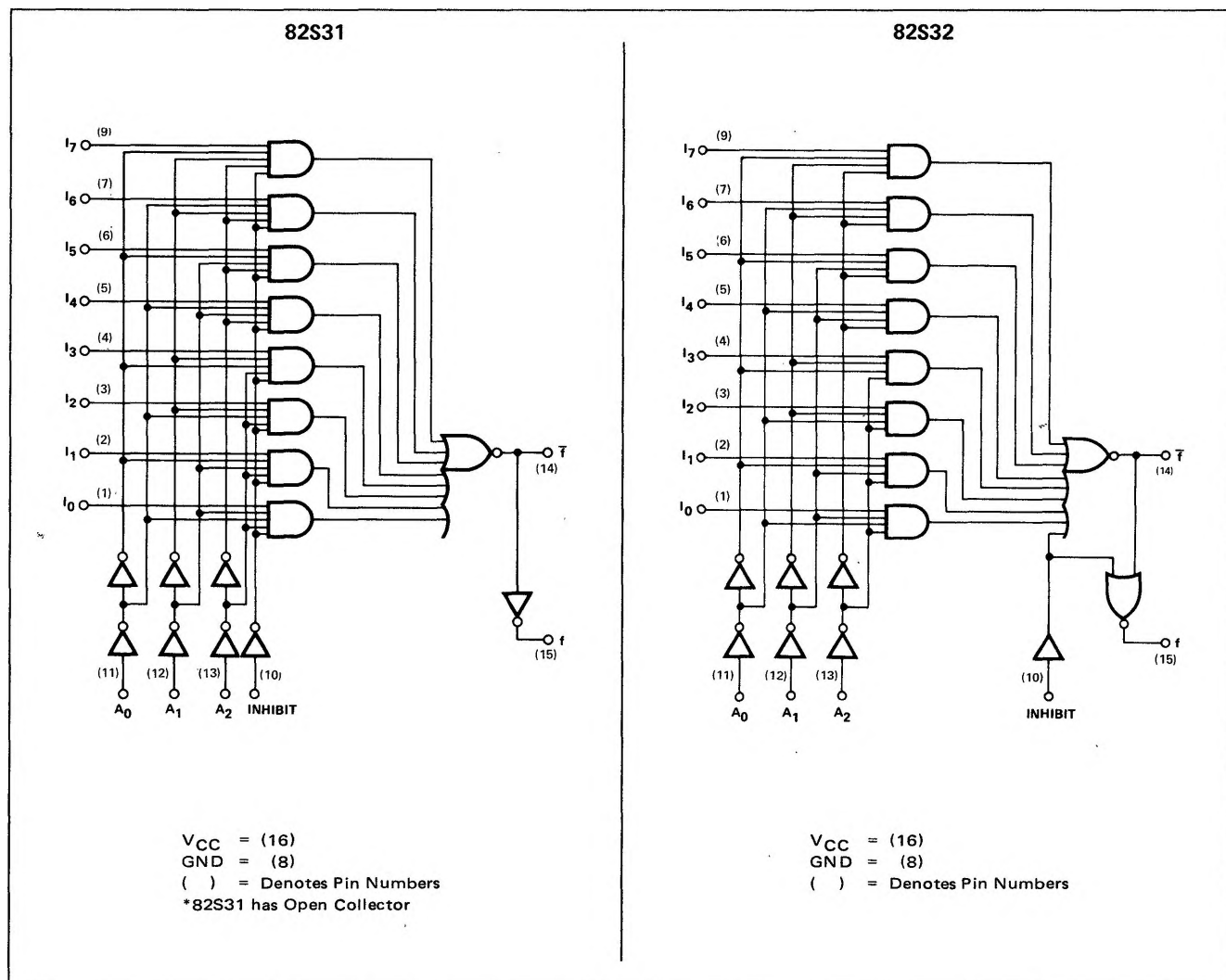
The 8-Input Digital Multiplexer is the logical equivalent of a single-pole, 8 position switch whose position is specified by a 3-bit input address.

The 82S31 is a variation of the 82S30 that provides open collector output  $\bar{f}$  for expansion of input terms. The 82S32 is similar to the 82S30 except in the effect of the INHIBIT input on the  $\bar{f}$  output. With the INHIBIT low, the selected input appears at the  $f$  output and, in complement, on the  $\bar{f}$  output. With the INHIBIT input high, both the  $f$  and the  $\bar{f}$  output are unconditionally low.

### FEATURES

- SCHOTTKY-CLAMPED TTL STRUCTURE
- PNP INPUTS
- OPEN COLLECTOR OUTPUT (82S31)
- DIRECT OUTPUT INHIBIT (82S32)

### LOGIC DIAGRAMS



### ELECTRICAL CHARACTERISTICS

Propagation Delay (Typ)

	82S32	82S31
$A_n$ to $\bar{f}$	12ns	14ns
$I_n$ to $\bar{f}$	7ns	9ns

Input Load Current (Max)

$I_{In} "0"$	400 $\mu$ A
$I_{In} "1"$	10 $\mu$ A

Output Current

$I_{out} "0"$	20mA @ 0.5V
$I_{out} "1"$	1mA @ 2.7V (82S30/32)