DESCRIPTION

The 8228 is a 4096 Bit Bipolar Read Only Memory organized as 1024 words by 4 bits per word. Available in a 16 pin Dual-in-Line package, the 8228 can provide very high bit packing density by replacing four standard 256X4 ROMS.

The 8228 is fully TTL compatible and includes on-the-chip decoding. Typical access time is 50ns with a power consumption of only .125mW per bit.

The standard 8228 ROM pattern is the USASCII Row Character Generator code; however, custom patterns are also available. The standard pattern is specified as the N8228I - CD162, while custom circuits are identified as N82281 - CDXXX. A Truth Table/Order Blank is included on page 201 for ordering custom patterns.

See page 196 for CD162 Pattern and USASCII Row Character Generator.

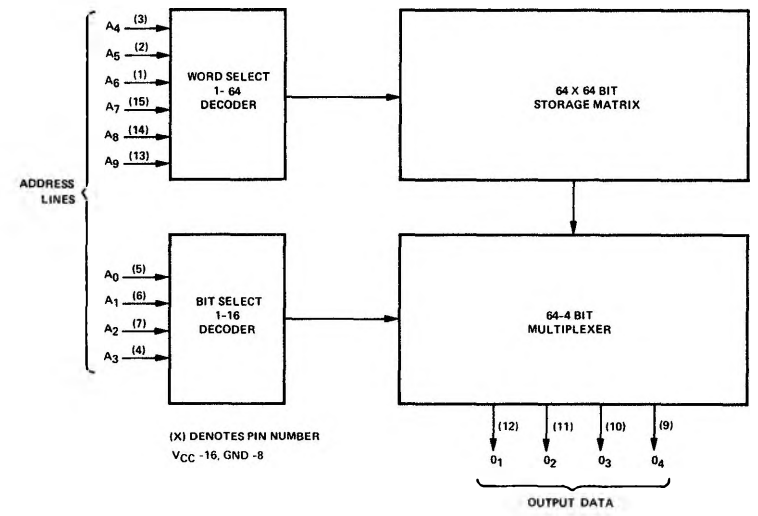
FEATURES

- BUFFERED ADDRESS LINES
- ON THE CHIP DECODING
- TOTEM-POLE OUTPUTS
- DIODE PROTECTED INPUTS
- 16 PIN PACKAGE (1/3 SIZE OF 24 PIN PACKAGE)

APPLICATIONS

MICROPROGRAMMING
HARDWIRED ALGORITHMS
CHARACTER RECOGNITION
CHARACTER GENERATION
CONTROL STORE

BLOCK DIAGRAM



ELECTRICAL CHARACTERISTICS (Over Recommended Operating Temperature And Voltage)

CHARACTERISTICS	LIMITS				TEST CONDITIONS	NOTES
	MIN.	TYP.	MAX.	UNITS		
"0" Output Voltage			0.45	V	I_{out} = 11.2 mA	
"1" Output Voltage	2.7			V	I_{out} = -1.0 mA	
"0" Input Current		-10	-200	μA	V_{in} = 0.5V	
"1" Input Current		1	25	μA	V_{in} = 5.25V	
Input Threshold Voltage						
"0" Level	.85			V		
"1" Level			2.0	V		
Propagation Delay		50	90	ns		

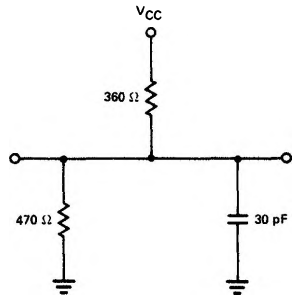
T_A = 25° C and V_{CC} = 5.0V

CHARACTERISTICS	LIMITS				TEST CONDITIONS	NOTES
	MIN.	TYP.	MAX.	UNITS		
Input Clamp Voltage	-1.0			V	I_{in} = 5.0mA	
Power Consumption		100	140	mA	O_1 to O_3 = "0"	
Output Short Circuit Current	-20		-70	mA		

NOTES:
1. Positive current is defined as into the terminal referenced.
2. No more than one output should be grounded at the same time.
3. Manufacturer reserves the right to make design and process changes and improvements.
4. Applied voltages must not exceed 6.0V
   Input currents must not exceed ±30mA
   Output currents must not exceed ±100mA
   Storage temperature must be between -60°C to +150°C

AC TEST FIGURE AND WAVEFORM

TEST LOAD



READ CYCLE