54F/74F827 • 54F/74F828

10-Bit Buffers/Line Drivers

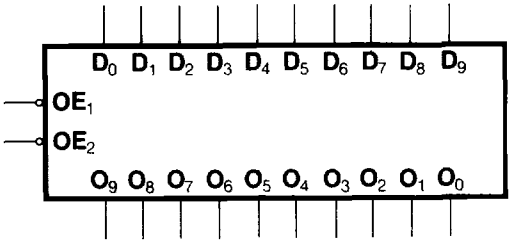
Description

The 'F827 and 'F828 10-bit bus buffers provide high performance bus interface buffering for wide data/address paths or buses carrying parity. The 10-bit buffers have NOR output enables for maximum control flexibility.

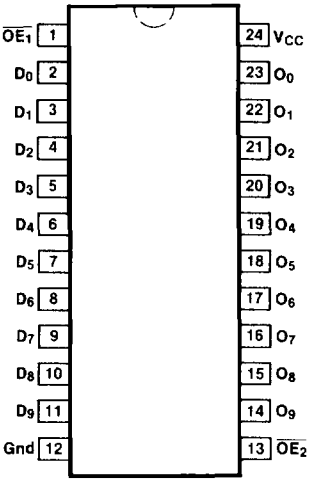
The 'F827 and 'F828 are functional and pin compatible to AMD's 29827 and 29828. The 'F828 is an inverting version of the 'F827.

Ordering Code: See Section 5

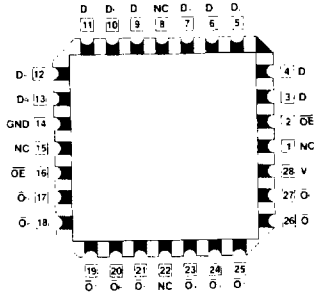
Logic Symbol



Connection Diagrams



Pin Assignment for DIP and SOIC



Pin Assignment for LCC and PCC

Input Loading/Fan-Out: See Section 3 for U.L. definitions

Pin Names	Description	54F/74F(U.L.) HIGH/LOW
$\overline{OE}_1$, $\overline{OE}_2$	Output Enable	0.5/0.375
D_0-D_7	Data Inputs	0.5/0.375
O_0-O_7	Data Outputs	75/40 (30)

Functional Description

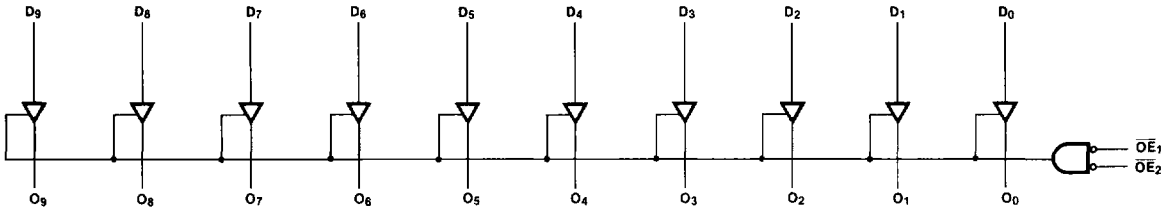
The 'F827 and 'F828 are line drivers designed to be employed as memory address drivers, clock drivers and bus oriented transmitters/receivers which provide improved PC board density. The devices have 3-state outputs controlled by the Output Enable ($\overline{OE}$) pins. The outputs can sink 64 mA and source 15 mA. Input clamp diodes limit high speed termination effects.

Function Table

Inputs		Outputs		Function
		O_n		
$\overline{OE}$	D_n	'F827	'F828	
L	H	H	L	Transparent
L	L	L	H	Transparent
H	X	Z	Z	High Z

H = HIGH Voltage Level
L = LOW Voltage Level
X = Immaterial
Z = High Impedance

Logic Diagram



Please note that this diagram is provided only for the understanding of logic operations and should not be used to estimate propagation delays.

DC Characteristics over Operating Temperature Range (unless otherwise specified)

Symbol	Parameter	54F/74F			Units	Conditions
		Min	Typ	Max		
I_{CCH}	Power Supply Current		40	60	mA	V_{CC} = Max
I_{CCL}			60	90		
I_{CCZ}			60	90		

AC Characteristics: See Section 3 for waveforms and load configurations

Symbol	Parameter	54F/74F			54F		74F		Units	Fig. No.
		T_A = +25°C, V_{CC} = +5.0 V, C_L = 50 pF			T_A, V_{CC} = Mil, C_L = 50 pF		T_A, V_{CC} = Com, C_L = 50 pF			
		Min	Typ	Max	Min	Max	Min	Max		
t_{PLH}	Propagation Delay			6.0					ns	3-1
t_{PHL}	Data to Output ('F827)			5.0						3-4
t_{PLH}	Propagation Delay			5.0					ns	3-1
t_{PHL}	Data to Output ('F828)			5.0						3-3
t_{PZH}	Output Enable Time			7.0					ns	3-1
t_{PZL}	$\overline{OE}$ to O_n			8.0						3-12
t_{PHZ}	Output Disable Time			7.0						3-13
t_{PLZ}	$\overline{OE}$ to O_n			8.0						