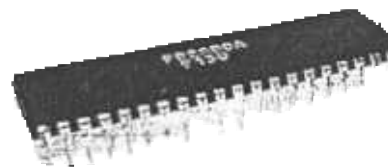


F-P ELECTRONICS

FP2800A Decoder Driver

The FP2800A Decoder Driver is a 40 pin integrated circuit which provides the decoding to select one of 28 high current driver outputs for sinking and sourcing current. A complementary driver is available for bridge output applications. The CMOS compatible data inputs are grouped to allow one of four 7-segment displays to be addressed. A DATA pin sets the output to source or sink mode and the output is activated for the duration of an ENABLE signal.

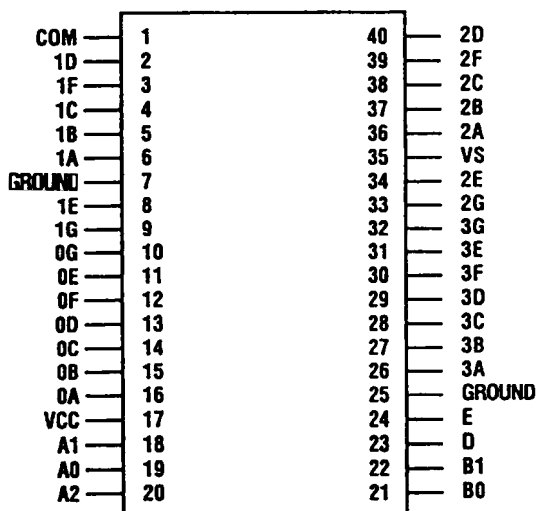


FEATURES:

- Operates up to 27.3 volts D.C.
- Source and sink up to 370 mA
- Low saturation devices
- Internal clamping diodes for inductive loads
- Microprocessor compatible inputs

APPLICATIONS:

- Driving 1" (25mm) 7 segment modules for gas pump readouts
- Driving 1" (25mm) 7 segment modules and 35 disk matrix XY5 series modules in panel configurations
- Driving 1" (25mm) 7 segment modules for parking meter readouts
- Driving 1" (25mm) 7 segment modules, 35 disk matrix XY5, and 35 disk matrix XY7 series modules for general pricing and general message applications



PIN ASSIGNMENT (TOP VIEW)

RECOMMENDED OPERATING CONDITIONS				
	MIN	NORMAL	MAX	UNITS
Logic supply voltage, V_{CC}	4.5	5	5.5	V
Power supply voltage, V_s		26	27.5	V
Power supply current, I_s		350	370	mA
Operating temperature range	-40		80	°C
Duty cycle of the circuit, at 80°C, at 25°C			25 50	%
Operating Frequency	5			Hz

ABSOLUTE MAXIMUM RATINGS		
Logic supply voltage	V_{CC}	7V
Input voltage	V_{IN}	6V
Power supply voltage	V_s	30V
Power supply current	I_s	500mA
Operating temperature	TA	-40°C to 80°C

ELECTRICAL CHARACTERISTICS OVER RECOMMENDED OPERATING TEMPERATURE RANGE					
	TEST CONDITION	MIN	TYP.	MAX	UNITS
V_{IH} High Level Input Voltage	$V_{CC} = 5V$	2			V
V_{IL} Low Level Input Voltage	$V_{CC} = 5V$			0.8	V
I_{IH} High Level Input Current	$V_{CC} = 5V$ $V_{IN} = 5V$			1	µA
I_{IL} Low Level Input Current	$V_{CC} = 5V$ $V_{IN} = 0V$		1	-10	µA
Other Inputs			46	-60	µA
I_{CC} Logic Current	$V_{CC} = 5V$	2.0	6.6	10	mA
I_{OH} Off State Driver Power Supply Current	$V_s = 26V$ $E = 0V$			1	mA
I_{OL} Output Leakage	$V_s = 27.5V$, $E = 0V$ All output shorted to $V_s = 26$			1.0	mA
VSAT Output Saturation Voltage	$I_L = 350mA$ Source Trans. Sink Trans.			3.0 2.0	V

SWITCHING CHARACTERISTICS	MAX.	UNITS
t_{ON} Turn On Time for any Output See Fig 3	50	USEC
t_{OFF} Turn Off Time for any Output See Fig 3	150	USEC
t_{SE} Output Select Time See Fig 2	50	USEC

ENABLE E	INPUTS					COM OCOM	OUTPUTS																												
	DIGIT		SEGMENT				DIGIT 0							DIGIT 1							DIGIT 2							DIGIT 3							
	B1	B0	A2	A1	A0		Q0A	Q0B	Q0C	Q0D	Q0E	Q0F	Q0G	Q1A	Q1B	Q1C	Q1D	Q1E	Q1F	Q1G	Q2A	Q2B	Q2C	Q2D	Q2E	Q2F	Q2G	Q3A	Q3B	Q3C	Q3D	Q3E	Q3F	Q3G	
X	X	X																																	
I	X	X				I	D																												
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