

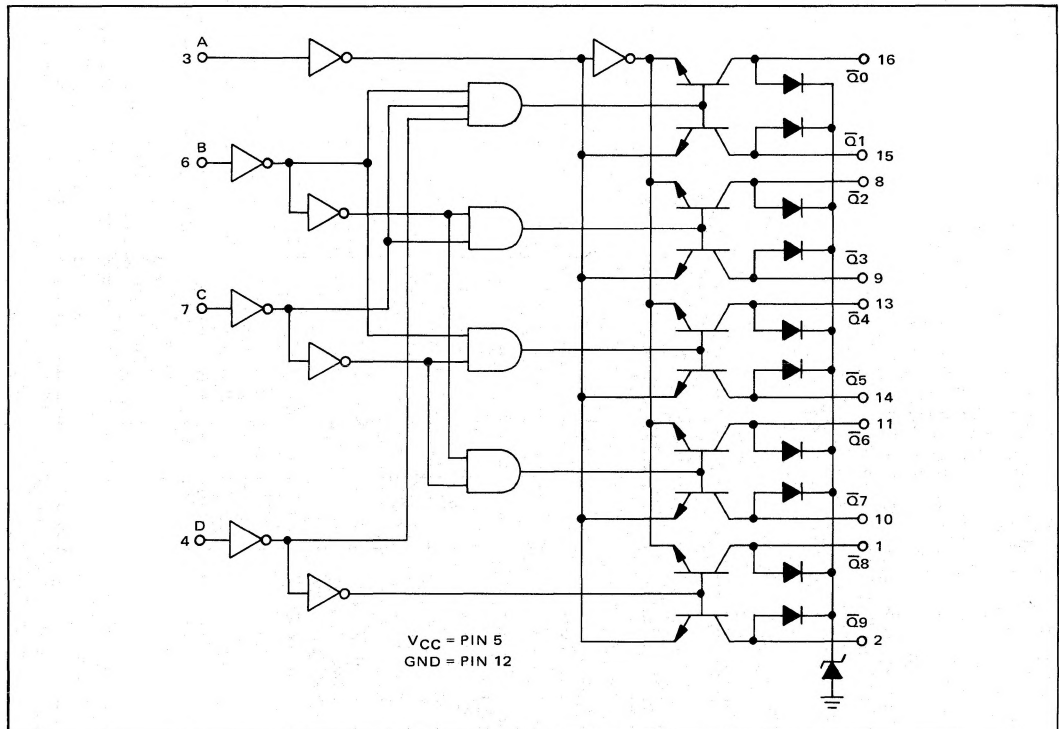
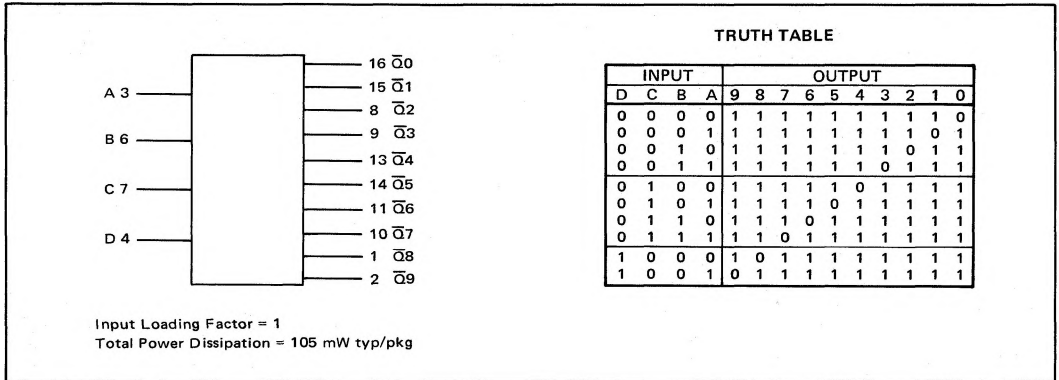
BCD-TO-DECIMAL DECODER
AND HIGH-LEVEL DRIVER

MC5400/7400 series

MC7441AL,P*

This monolithic device is a BCD to one-of-ten decoder with high-level outputs capable of driving gas-filled cold-cathode indicator tubes or other devices requiring high-voltage drivers. In a typical application, this device would be driven by the MC7490 decade counter through the

MC7475 quad bistable latch. The outputs are guaranteed to operate at 55 volts with a maximum of 200 μ A leakage current. The outputs of this device are protected by zener diodes to eliminate the possibility of oscillation due to the breakdown of the output devices.



* L suffix = 16-pin ceramic package (Case 620).
P suffix = 16-pin plastic package (Case 612).

ELECTRICAL CHARACTERISTICS

Test procedures are shown for only the A input and one output. To complete testing, sequence through the remaining inputs and outputs as shown in the truth table.

		TEST CURRENT / VOLTAGE VALUES (All Temperatures)														
		Volts														
		I_{on}	V_{IL}	V_{IH}	V_{IHH}	V_{th1}	V_{th0}	V_{out}	V_{CC}	V_{CCL}	V_{CCH}					
		7.0	0.4	2.4	5.5	2.0	0.8	55	5.0	4.75	5.25					
		TEST CURRENT / VOLTAGE APPLIED TO PINS LISTED BELOW:														
Characteristic	Symbol	Pin Under Test	MC7441A Test Limits 0 to +70°C			I_{on}	V_{IL}	V_{IH}	V_{IHH}	V_{th1}	V_{th0}	V_{out}	V_{CC}	V_{CCL}	V_{CCH}	Gnd
			Min	Max	Unit											
Input																
Forward Current	I_F	3	-	-1.6	mAdc	-	3	-	-	-	-	-	-	-	5	12
Leakage Current	I_{R1}	3	-	40	μ Adc	-	-	3	-	-	-	-	-	-	5	12
	I_{R2}	3	-	1.0	mAdc	-	-	-	3	-	-	-	-	-	5	12
Output																
Output Voltage	V_{OL}	1	-	2.5	Vdc	1	-	-	4	3,6,7	-	-	5	-	-	12
Output Leakage Current	I_{OLK}	1	-	200	μ Adc	-	-	-	-	3,4,6,7	1	-	5	-	-	12
Power Requirements (Total Device) Power Supply Drain	I_{PD}	5	-	32	mAdc	-	-	-	-	-	-	5	-	-	-	4,12