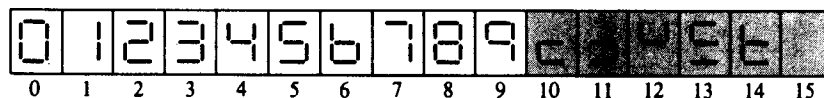


(a) Segment identification



(b) Decimal number with typical display

Fig. 7-10 Seven-segment display

Decimal or function	Inputs						BI/RBO	Outputs							Note
	LT	RBI	D	C	B	A		a	b	c	d	e	f	g	
0	H	H	L	L	L	L	H	ON	ON	ON	ON	ON	ON	OFF	1
1	H	X	L	L	L	H	H	OFF	ON	ON	OFF	OFF	OFF	OFF	
2	H	X	L	L	H	L	H	ON	ON	OFF	ON	ON	OFF	ON	
3	H	X	L	L	H	H	H	ON	ON	ON	ON	OFF	OFF	ON	
4	H	X	L	H	L	L	H	OFF	ON	ON	OFF	OFF	ON	ON	
5	H	X	L	H	L	H	H	ON	OFF	ON	ON	OFF	ON	ON	
6	H	X	L	H	H	L	H	OFF	OFF	ON	ON	ON	ON	ON	
7	H	X	L	H	H	H	H	ON	ON	ON	OFF	OFF	OFF	OFF	
8	H	X	H	L	L	L	H	ON	ON	ON	ON	ON	ON	ON	
9	H	X	H	L	L	H	H	ON	ON	ON	OFF	OFF	ON	ON	
10	H	X	H	L	H	L	H	OFF	OFF	OFF	ON	ON	OFF	ON	
11	H	X	H	L	H	H	H	OFF	OFF	ON	ON	OFF	OFF	ON	
12	H	X	H	H	L	L	H	OFF	ON	OFF	OFF	OFF	ON	ON	
13	H	X	H	H	L	H	H	ON	OFF	OFF	ON	OFF	ON	ON	
14	H	X	H	H	H	L	H	OFF	OFF	OFF	ON	ON	ON	ON	
15	H	X	H	H	H	H	H	OFF	OFF	OFF	OFF	OFF	OFF	OFF	
BI	X	X	X	X	X	X	L	OFF	OFF	OFF	OFF	OFF	OFF	OFF	2
RBI	H	L	L	L	L	L	L	OFF	OFF	OFF	OFF	OFF	OFF	OFF	3
LT	L	X	X	X	X	X	H	ON	ON	ON	ON	ON	ON	ON	4

H = HIGH level, L = LOW level, X = irrelevant

- Notes:
1. The blanking input (BI) must be open or held at a HIGH logic level when output functions 0 through 15 are desired. The ripple-blanking input (RBI) must be open or HIGH if blanking of a decimal zero is not desired.
 2. When a LOW logic level is applied directly to the blanking input (BI), all segment outputs are OFF regardless of the level of any other input.
 3. When ripple-blanking input (RBI) and inputs A, B, C, and D are at a LOW level with the lamp-test input HIGH, all segment outputs go OFF and the ripple-blanking output (RBO) goes to a LOW level (response condition).
 4. When the blanking input/ripple-blanking output (BI/RBO) is open or held HIGH and a LOW is applied to the lamp-test input, all segment outputs are ON.

(b) Truth table (Reprinted by permission of Texas Instruments, Inc.)

Fig. 7-12 Commercial 7447 BCD-to-seven-segment decoder/driver