



SN74HC/HCT42 (LX) BCD to Decimal Decoder (1-of-10)

Product Specification

Specification Revision History:

Version	Date	Description
2022-06-A1	2022-06	New
2023-04-B1	2023-04	Update the template



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1、General Description

The SN74HC/HCT42 is a one of ten BCD to decimal decoder. It accepts four BCD inputs (0A to 3A) and provides ten mutually exclusive outputs ($0\bar{Y}$ to $9\bar{Y}$). The logic design ensures that all outputs are HIGH when binary codes greater than nine are applied to the inputs. The most significant input (3A) produces an useful inhibit function when the device is used as a 1-of-8 decoder. The 3A input can also be used as the data input in an 8-output demultiplexer application. Inputs include clamp diodes. This enables the use of current limiting resistors to interface inputs to voltages in excess of V_{CC} .

Features:

- Input levels:
 - For SN74HC42: CMOS level
 - For SN74HCT42: TTL level
- Mutually exclusive outputs
- 1-of-8 demultiplexing capability
- Outputs disabled for input codes above nine
- Specified from -40°C to $+125^{\circ}\text{C}$
- Packaging information: DIP16/SOP16/TSSOP16



Ordering Information:

Tube packing specifications:

Part number	Packaging form	Marking code	Tube quantity	Boxed tube quantity	Boxed quantity	Notes
SN74HC42N (LX)	DIP16	SN74HC42N	25 PCS/tube	40 tube/box	1000 PCS/box	Dimensions of plastic enclosure: 19.0mm×6.4mm Pin spacing: 2.54mm
SN74HCT42N (LX)	DIP16	SN74HCT42N	25 PCS/tube	40 tube/box	1000 PCS/box	Dimensions of plastic enclosure: 19.0mm×6.4mm Pin spacing: 2.54mm
SN74HC42D(LX)	SOP16	HC42	50 PCS/tube	200 tube/box	10000 PCS/box	Dimensions of plastic enclosure: 10.0mm×3.9mm Pin spacing: 1.27mm
SN74HCT42D(LX)	SOP16	HCT42	50 PCS/tube	200 tube/box	10000 PCS/box	Dimensions of plastic enclosure: 10.0mm×3.9mm Pin spacing: 1.27mm
SN74HC42P(LX)	TSSOP16	74HC42	96 PCS/tube	200 tube/box	19200 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm
SN74HCT42P(LX)	TSSOP16	74HCT42	96 PCS/tube	200 tube/box	19200 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing: 0.65mm



Reel packing specifications:

Part number	Packaging form	Marking code	Reel quantity	Boxed reel quantity	Notes
SN74HC42DR (LX)	SOP16	HC42	4000 PCS/reel	8000 PCS/box	Dimensions of plastic enclosure: 10.0mm×3.9mm Pin spacing:1.27mm
SN74HCT42DR (LX)	SOP16	HCT42	4000 PCS/reel	8000 PCS/box	Dimensions of plastic enclosure: 10.0mm×3.9mm Pin spacing:1.27mm
SN74HC42PW (LX)	TSSOP16	74HC42	5000 PCS/reel	10000 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing:0.65mm
SN74HCT42PW(LX)	TSSOP16	74HCT42	5000 PCS/reel	10000 PCS/box	Dimensions of plastic enclosure: 5.0mm×4.4mm Pin spacing:0.65mm

Note: If the physical information is inconsistent with the ordering information, please refer to the actual product.

2、Block Diagram And Pin Description

2.1、Block Diagram

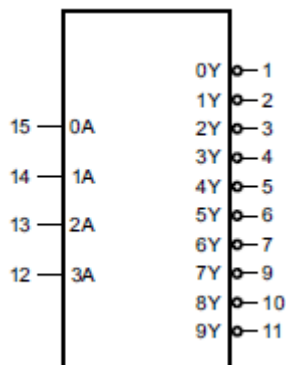


Figure 1. Logic symbol

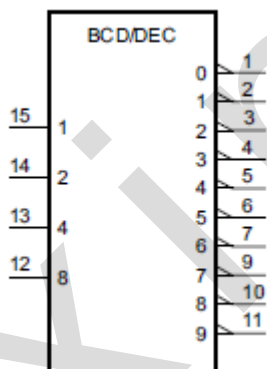


Figure 2. IEC logic symbol

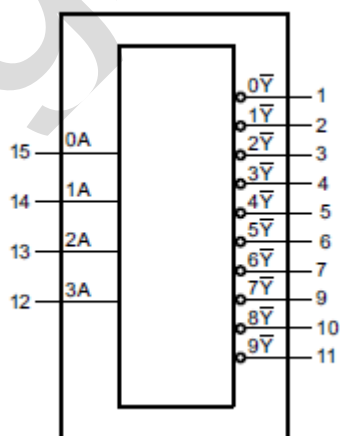


Figure 3. Functional diagram

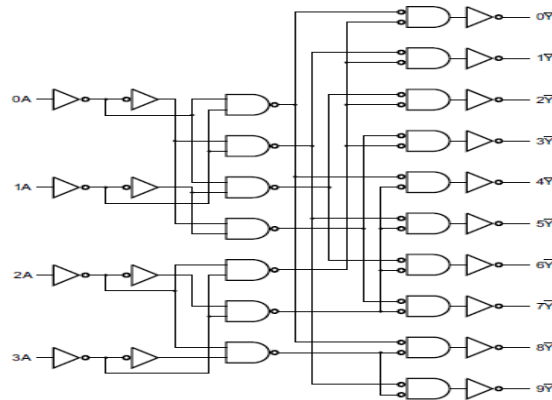
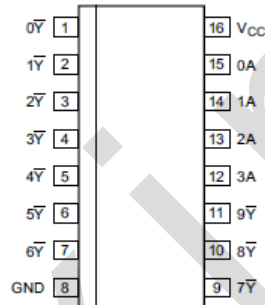


Figure 4. Logic diagram

2.2、Pin Configurations



2.3、Pin Description

Pin No.	Pin Name	Description
1	0Y	multiplexer output
2	1Y	multiplexer output
3	2Y	multiplexer output
4	3Y	multiplexer output
5	4Y	multiplexer output
6	5Y	multiplexer output
7	6Y	multiplexer output
8	GND	ground (0V)
9	7Y	multiplexer output
10	8Y	multiplexer output
11	9Y	multiplexer output
12	3A	data input
13	2A	data input
14	1A	data input
15	0A	data input
16	V _{CC}	supply voltage



2.4、Function Table

Input				Output									
3A	2A	1A	0A	0Y	1Y	2Y	3Y	4Y	5Y	6Y	7Y	8Y	9Y
L	L	L	L	L	H	H	H	H	H	H	H	H	H
L	L	L	H	H	L	H	H	H	H	H	H	H	H
L	L	H	L	H	H	L	H	H	H	H	H	H	H
L	L	H	H	H	H	H	L	H	H	H	H	H	H
L	H	L	L	H	H	H	H	L	H	H	H	H	H
L	H	L	H	H	H	H	H	H	L	H	H	H	H
L	H	H	L	H	H	H	H	H	H	L	H	H	H
L	H	H	H	H	H	H	H	H	H	H	L	H	H
H	L	L	L	H	H	H	H	H	H	H	H	L	H
H	L	L	H	H	H	H	H	H	H	H	H	H	L
H	L	H	L	H	H	H	H	H	H	H	H	H	H
H	L	H	H	H	H	H	H	H	H	H	H	H	H
H	H	L	L	H	H	H	H	H	H	H	H	H	H
H	H	L	H	H	H	H	H	H	H	H	H	H	H
H	H	H	L	H	H	H	H	H	H	H	H	H	H
H	H	H	H	H	H	H	H	H	H	H	H	H	H

Note: H=HIGH voltage level; L=LOW voltage level.

3、Electrical Parameter

3.1、Absolute Maximum Ratings

(Voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions	Min.	Max.	Unit
supply voltage	V_{CC}	-	-0.5	+7.0	V
input clamping current	I_{IK}	$V_I < -0.5V$ or $V_I > V_{CC}+0.5V$	-	± 20	mA
output clamping current	I_{OK}	$V_O < -0.5V$ or $V_O > V_{CC}+0.5V$	-	± 20	mA
output current	I_O	$-0.5V < V_O < V_{CC}+0.5V$	-	± 25	mA
supply current	I_{CC}	-	-	+50	mA
ground current	I_{GND}	-	-50	-	mA
storage temperature	T_{stg}	-	-65	+150	°C
total power dissipation	P_{tot}	-	-	500	mW
soldering temperature	T_L	10s	DIP	245	°C
			SOP/TSSOP	260	



3.2、Recommended Operating Conditions

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
SN74HC42						
supply voltage	V_{CC}	-	2.0	5.0	6.0	V
input voltage	V_I	-	0	-	V_{CC}	V
output voltage	V_O	-	0	-	V_{CC}	V
input transition rise and fall rate	$\Delta t/\Delta V$	$V_{CC}=2.0V$	-	-	625	ns/V
		$V_{CC}=4.5V$	-	1.67	139	ns/V
		$V_{CC}=6.0V$	-	-	83	ns/V
ambient temperature	T_{amb}	-	-40	-	+125	°C
SN74HCT42						
supply voltage	V_{CC}	-	4.5	5.0	5.5	V
input voltage	V_I	-	0	-	V_{CC}	V
output voltage	V_O	-	0	-	V_{CC}	V
input transition rise and fall rate	$\Delta t/\Delta V$	$V_{CC}=4.5V$	-	1.67	139	ns/V
ambient temperature	T_{amb}	-	-40	-	+125	°C

3.3、Electrical Characteristics

3.3.1、DC Characteristics 1

($T_{amb}=25^{\circ}C$, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
SN74HC42							
HIGH-level input voltage	V _{IH}	V _{CC} =2.0V		1.5	1.2	-	V
		V _{CC} =4.5V		3.15	2.4	-	V
		V _{CC} =6.0V		4.2	3.2	-	V
LOW-level input voltage	V _{IL}	V _{CC} =2.0V		-	0.8	0.5	V
		V _{CC} =4.5V		-	2.1	1.35	V
		V _{CC} =6.0V		-	2.8	1.8	V
HIGH-level output voltage	V _{OH}	V _I =V _{IH} or V _{IL}	I _O =-20uA; V _{CC} =2.0V	1.9	2.0	-	V
			I _O =-20uA; V _{CC} =4.5V	4.4	4.5	-	V
			I _O =-20uA; V _{CC} =6.0V	5.9	6.0	-	V
			I _O =-4.0mA; V _{CC} =4.5V	3.98	4.32	-	V
			I _O =-5.2mA; V _{CC} =6.0V	5.48	5.81	-	V
LOW-level output voltage	V _{OL}	V _I =V _{IH} or V _{IL}	I _O =20uA; V _{CC} =2.0V	-	0	0.1	V
			I _O =20uA; V _{CC} =4.5V	-	0	0.1	V
			I _O =20uA; V _{CC} =6.0V	-	0	0.1	V
			I _O =4.0mA; V _{CC} =4.5V	-	0.15	0.26	V
			I _O =5.2mA; V _{CC} =6.0V	-	0.16	0.26	V
input leakage current	I _I	V _I =V _{CC} or GND; V _{CC} =6.0V		-	-	±1.0	uA
supply current	I _{CC}	V _I =V _{CC} or GND; I _O =0A; V _{CC} =6.0V		-	-	8.0	uA
input capacitance	C _I	-		-	3.5	-	pF
SN74HCT42							



HIGH-level input voltage	V_{IH}	$V_{CC}=4.5V$ to $5.5V$	2.0	1.6	-	V
LOW-level input voltage	V_{IL}	$V_{CC}=4.5V$ to $5.5V$	-	1.2	0.8	V
HIGH-level output voltage	V_{OH}	$V_I=V_{IH}$ or V_{IL} ; $V_{CC}=4.5V$	$I_O=-20\mu A$	4.4	4.5	V
			$I_O=-4.0mA$	3.98	4.32	V
LOW-level output voltage	V_{OL}	$V_I=V_{IH}$ or V_{IL} ; $V_{CC}=4.5V$	$I_O=20\mu A$	-	0	V
			$I_O=4.0mA$	-	0.16	V
input leakage current	I_I	$V_I=V_{CC}$ or GND; $V_{CC}=5.5V$	-	-	± 1.0	μA
supply current	I_{CC}	$V_I=V_{CC}$ or GND; $I_O=0A$; $V_{CC}=5.5V$	-	-	8.0	μA
additional supply current	ΔI_{CC}	$V_I=V_{CC}-2.1V$; other inputs at V_{CC} or GND; $I_O=0A$; $V_{CC}=4.5V$ to $5.5V$	-	-	360	μA
input capacitance	C_I	-	-	3.5	-	pF

3.3.2、DC Characteristics 2

($T_{amb}=-40^{\circ}C$ to $+85^{\circ}C$, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
SN74HC42							
HIGH-level input voltage	V_{IH}	$V_{CC}=2.0V$		1.5	-	-	V
		$V_{CC}=4.5V$		3.15	-	-	V
		$V_{CC}=6.0V$		4.2	-	-	V
LOW-level input voltage	V_{IL}	$V_{CC}=2.0V$		-	-	0.5	V
		$V_{CC}=4.5V$		-	-	1.35	V
		$V_{CC}=6.0V$		-	-	1.8	V
HIGH-level output voltage	V_{OH}	$V_I=V_{IH}$ or V_{IL}	$I_O=-20\mu A$; $V_{CC}=2.0V$	1.9	-	-	V
			$I_O=-20\mu A$; $V_{CC}=4.5V$	4.4	-	-	V
			$I_O=-20\mu A$; $V_{CC}=6.0V$	5.9	-	-	V
			$I_O=-4.0mA$; $V_{CC}=4.5V$	3.84	-	-	V
			$I_O=-5.2mA$; $V_{CC}=6.0V$	5.34	-	-	V
LOW-level output voltage	V_{OL}	$V_I=V_{IH}$ or V_{IL}	$I_O=20\mu A$; $V_{CC}=2.0V$	-	-	0.1	V
			$I_O=20\mu A$; $V_{CC}=4.5V$	-	-	0.1	V
			$I_O=20\mu A$; $V_{CC}=6.0V$	-	-	0.1	V
			$I_O=4.0mA$; $V_{CC}=4.5V$	-	-	0.33	V
			$I_O=5.2mA$; $V_{CC}=6.0V$	-	-	0.33	V
input leakage current	I_I	$V_I=V_{CC}$ or GND; $V_{CC}=6.0V$		-	-	± 1.0	μA
supply current	I_{CC}	$V_I=V_{CC}$ or GND; $I_O=0A$; $V_{CC}=6.0V$		-	-	80	μA
SN74HCT42							
HIGH-level input voltage	V_{IH}	$V_{CC}=4.5V$ to $5.5V$		2.0	-	-	V
LOW-level input voltage	V_{IL}	$V_{CC}=4.5V$ to $5.5V$		-	-	0.8	V
HIGH-level output voltage	V_{OH}	$V_I=V_{IH}$ or V_{IL} ; $V_{CC}=4.5V$	$I_O=-20\mu A$	4.4	-	-	V
			$I_O=-4.0mA$	3.84	-	-	V



LOW-level output voltage	V_{OL}	$V_I = V_{IH} \text{ or } V_{IL}; V_{CC} = 4.5V$	$I_O = 20\mu A$	-	-	0.1	V
			$I_O = 4.0mA$	-	-	0.33	V
input leakage current	I_I	$V_I = V_{CC} \text{ or } GND; V_{CC} = 5.5V$		-	-	± 1.0	μA
supply current	I_{CC}	$V_I = V_{CC} \text{ or } GND; I_O = 0A; V_{CC} = 5.5V$		-	-	80	μA
additional supply current	ΔI_{CC}	$V_I = V_{CC} - 2.1V;$ other inputs at $V_{CC} \text{ or } GND; I_O = 0A;$ $V_{CC} = 4.5V \text{ to } 5.5V$		-	-	450	μA

3.3.3、DC Characteristics 3

($T_{amb} = -40^\circ C$ to $+125^\circ C$, voltages are referenced to GND (ground=0V), unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
SN74HC42							
HIGH-level input voltage	V _{IH}	V _{CC} =2.0V		1.5	-	-	V
		V _{CC} =4.5V		3.15	-	-	V
		V _{CC} =6.0V		4.2	-	-	V
LOW-level input voltage	V _{IL}	V _{CC} =2.0V		-	-	0.5	V
		V _{CC} =4.5V		-	-	1.35	V
		V _{CC} =6.0V		-	-	1.8	V
HIGH-level output voltage	V _{OH}	V _I =V _{IH} or V _{IL}	I _O =-20uA; V _{CC} =2.0V	1.9	-	-	V
			I _O =-20uA; V _{CC} =4.5V	4.4	-	-	V
			I _O =-20uA; V _{CC} =6.0V	5.9	-	-	V
			I _O =-4.0mA; V _{CC} =4.5V	3.7	-	-	V
			I _O =-5.2mA; V _{CC} =6.0V	5.2	-	-	V
LOW-level output voltage	V _{OL}	V _I =V _{IH} or V _{IL}	I _O =20uA; V _{CC} =2.0V	-	-	0.1	V
			I _O =20uA; V _{CC} =4.5V	-	-	0.1	V
			I _O =20uA; V _{CC} =6.0V	-	-	0.1	V
			I _O =4.0mA; V _{CC} =4.5V	-	-	0.4	V
			I _O =5.2mA; V _{CC} =6.0V	-	-	0.4	V
input leakage current	I _I	V _I =V _{CC} or GND; V _{CC} =6.0V		-	-	±1.0	uA
supply current	I _{CC}	V _I =V _{CC} or GND; I _O =0A; V _{CC} =6.0V		-	-	160	uA
SN74HCT42							
HIGH-level input voltage	V _{IH}	V _{CC} =4.5V to 5.5V		2.0	-	-	V
LOW-level input voltage	V _{IL}	V _{CC} =4.5V to 5.5V		-	-	0.8	V
HIGH-level output voltage	V _{OH}	V _I =V _{IH} or V _{IL} ; V _{CC} =4.5V	I _O =-20uA	4.4	-	-	V
			I _O =-4.0mA	3.7	-	-	V
LOW-level output voltage	V _{OL}	V _I =V _{IH} or V _{IL} ; V _{CC} =4.5V	I _O =20uA	-	-	0.1	V
			I _O =4.0mA	-	-	0.4	V
input leakage current	I _I	V _I =V _{CC} or GND; V _{CC} =5.5V		-	-	±1.0	uA
supply current	I _{CC}	V _I =V _{CC} or GND; I _O =0A; V _{CC} =5.5V		-	-	160	uA
additional supply current	ΔI _{CC}	V _I =V _{CC} -2.1V; other inputs at V _{CC} or GND; I _O =0A; V _{CC} =4.5V to 5.5V		-	-	490	uA



3.3.4、AC Characteristics 1

($T_{amb}=25^{\circ}\text{C}$, $\text{GND}=0\text{V}$, $C_L=50\text{pF}$, unless otherwise specified.)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
SN74HC42						
nA to nY propagation delay	t_{pd}	see Figure 6 ^[1]	$V_{CC}=2.0\text{V}$	-	47	150 ns
			$V_{CC}=4.5\text{V}$	-	17	30 ns
			$V_{CC}=5.0\text{V}; C_L=15\text{pF}$	-	17	- ns
			$V_{CC}=6.0\text{V}$	-	14	26 ns
transition time	t_t	see Figure 6 ^[2]	$V_{CC}=2.0\text{V}$	-	19	75 ns
			$V_{CC}=4.5\text{V}$	-	7	15 ns
			$V_{CC}=6.0\text{V}$	-	6	13 ns
power dissipation capacitance	C_{PD}	per package; $V_I=\text{GND}$ to V_{CC} ^[3]	-	37	-	pF
SN74HCT42						
nA to nY propagation delay	t_{pd}	see Figure 6 ^[1]	$V_{CC}=4.5\text{V}$	-	20	35 ns
			$V_{CC}=5.0\text{V}; C_L=15\text{pF}$	-	17	- ns
transition time	t_t	$V_{CC}=4.5\text{V}$; see Figure 6 ^[2]	-	7	15	ns
power dissipation capacitance	C_{PD}	per package; $V_I=\text{GND}$ to $V_{CC}-1.5\text{V}$ ^[3]	-	37	-	pF

Note:

[1] t_{pd} is the same as t_{PLH} and t_{PHL} .

[2] t_t is the same as t_{THL} and t_{TLH} .

[3] C_{PD} is used to determine the dynamic power dissipation (P_D in uW).

$P_D = C_{PD} \times V_{CC}^2 \times f_i \times N + \sum (C_L \times V_{CC}^2 \times f_o)$ where:

f_i =input frequency in MHz;

f_o =output frequency in MHz;

C_L =output load capacitance in pF;

V_{CC} =supply voltage in V;

N =number of inputs switching;

$\sum (C_L \times V_{CC}^2 \times f_o)$ =sum of outputs.



3.3.5、AC Characteristics 2

($T_{amb} = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$, $GND = 0V$, $C_L = 50pF$, unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
SN74HC42							
nA to $\bar{N}Y$ propagation delay	t_{pd}	see Figure 6 ^[1]	$V_{CC}=2.0V$	-	-	190	ns
			$V_{CC}=4.5V$	-	-	38	ns
			$V_{CC}=6.0V$	-	-	33	ns
transition time	t_t	see Figure 6 ^[2]	$V_{CC}=2.0V$	-	-	95	ns
			$V_{CC}=4.5V$	-	-	19	ns
			$V_{CC}=6.0V$	-	-	16	ns
SN74HCT42							
nA to $\bar{N}Y$ propagation delay	t_{pd}	see Figure 6 ^[1]	$V_{CC}=4.5V$	-	-	44	ns
transition time	t_t	$V_{CC}=4.5V$; see Figure 6 ^[2]		-	-	19	ns

Note:

[1] t_{pd} is the same as t_{PLH} and t_{PHL} .

[2] t_t is the same as t_{THL} and t_{TLH} .

3.3.6、AC Characteristics 3

($T_{amb} = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$, $GND = 0V$, $C_L = 50pF$, unless otherwise specified.)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
SN74HC42							
nA to $\bar{N}$ propagation delay	t_{pd}	see Figure 6 ^[1]	$V_{CC}=2.0V$	-	-	225	ns
			$V_{CC}=4.5V$	-	-	45	ns
			$V_{CC}=6.0V$	-	-	38	ns
transition time	t_t	see Figure 6 ^[2]	$V_{CC}=2.0V$	-	-	110	ns
			$V_{CC}=4.5V$	-	-	22	ns
			$V_{CC}=6.0V$	-	-	19	ns
SN74HCT42							
nA to $\bar{N}$ propagation delay	t_{pd}	see Figure 6 ^[1]	$V_{CC}=4.5V$	-	-	53	ns
transition time	t_t	$V_{CC}=4.5V$; see Figure 6 ^[2]		-	-	22	ns

Note:

[1] t_{pd} is the same as t_{PLH} and t_{PHL} .

[2] t_t is the same as t_{THL} and t_{TLH} .

4、Testing Circuit

4.1、AC Testing Circuit

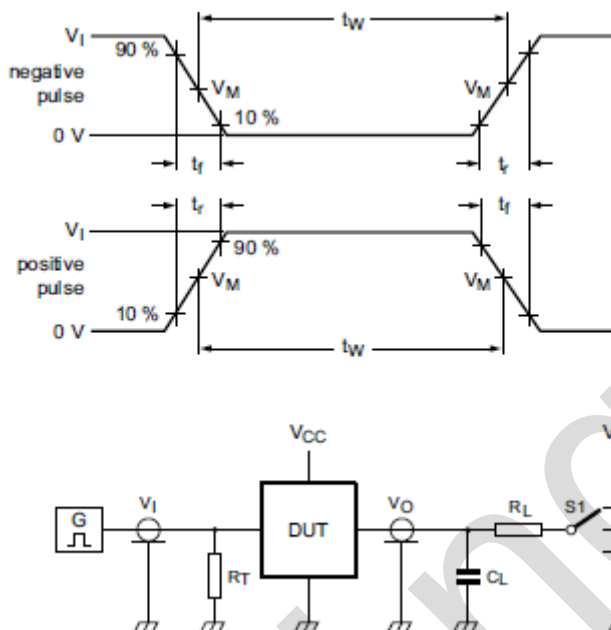


Figure 5. Test circuit for measuring switching times

Definitions for test circuit:

C_L =Load capacitance including jig and probe capacitance.

R_T =Termination resistance should be equal to the output impedance Z_o of the pulse generator.

R_L =Load resistance.

S1=Test selection switch

4.2、AC Testing Waveforms

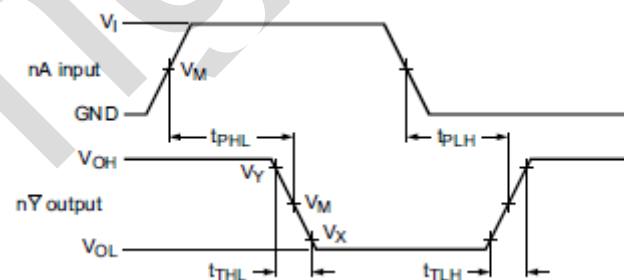


Figure 6. Input (nA) to output (nY) propagation delays and output transition times



4.3、Measurement Points

Type	Input	Output		
	V_M	V_M	V_X	V_Y
SN74HC42	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$0.1 \times V_{CC}$	$0.9 \times V_{CC}$
SN74HCT42	1.3V	1.3V	$0.1 \times V_{CC}$	$0.9 \times V_{CC}$

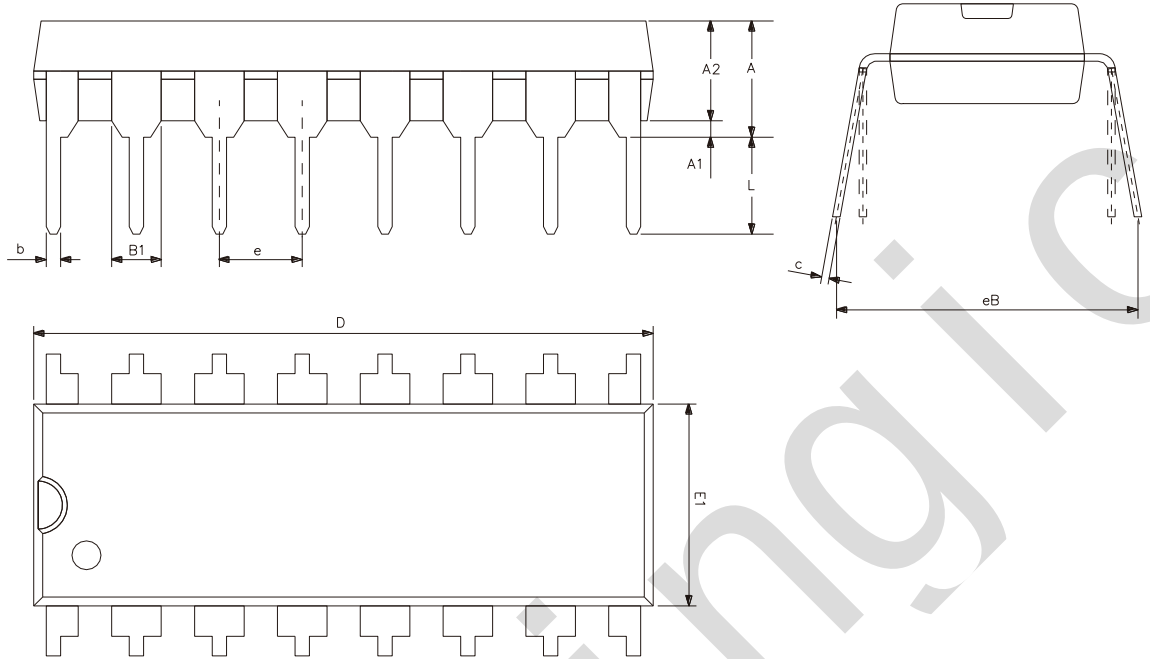
4.4、Test Data

Type	Input		Load		S1 position
	V_I	t_r, t_f	C_L	R_L	t_{PLH}, t_{PHL}
SN74HC42	V_{CC}	6ns	15pF, 50pF	1k Ω	open
SN74HCT42	3V	6ns	15pF, 50pF	1k Ω	open



5、Package Information

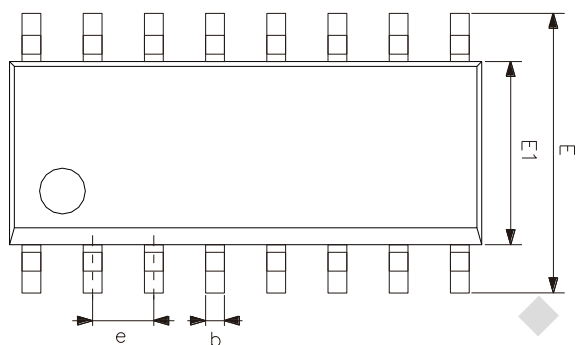
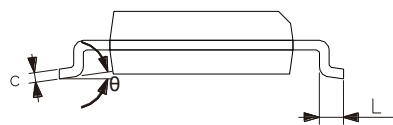
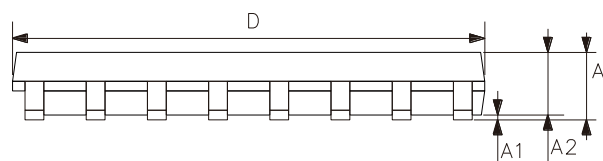
5.1、DIP16



Symbol	Dimensions (mm)	
	Min.	Max.
A2	3.20	3.60
A1	0.51	-
A	3.60	5.33
L	3.00	3.60
b	0.36	0.56
B1	1.52	
D	18.80	19.94
E1	6.20	6.60
e	2.54	
c	0.20	0.36
eB	7.62	9.30

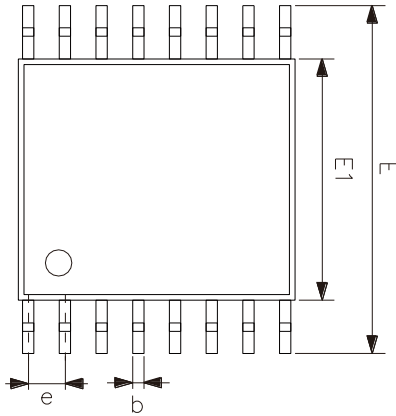
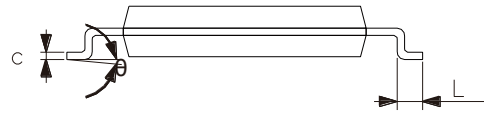
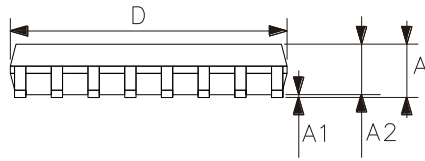


5.2、SOP16



Symbol	Dimensions (mm)	
	Min.	Max.
A	1.35	1.80
A1	0.10	0.25
A2	1.25	1.55
b	0.33	0.51
c	0.19	0.25
D	9.50	10.10
E	5.80	6.30
E1	3.70	4.10
e	1.27	
L	0.35	0.89
θ	0°	8°

5.3、TSSOP16



Symbol	Dimensions (mm)	
	Min.	Max.
A	-	1.20
A1	0.05	0.15
A2	0.80	1.05
b	0.19	0.30
c	0.09	0.20
D	4.90	5.10
E1	4.30	4.50
E	6.20	6.60
e	0.65	
L	0.45	0.75
θ	0°	8°



6、Statements And Notes

6.1、The name and content of Hazardous substances or Elements in the product

Part name	Hazardous substances or Elements									
	Lead and lead compounds	Mercury and mercury compounds	Cadmium and cadmium compounds	Hexavalent chromium compounds	Polybrominated biphenyls	Polybrominated biphenyl ethers	Dibutyl phthalate	Butylbenzyl phthalate	Di-2-ethylhexyl phthalate	Diisobutyl phthalate
Lead frame	○	○	○	○	○	○	○	○	○	○
Plastic resin	○	○	○	○	○	○	○	○	○	○
Chip	○	○	○	○	○	○	○	○	○	○
The lead	○	○	○	○	○	○	○	○	○	○
Plastic sheet installed	○	○	○	○	○	○	○	○	○	○
explanation	○: Indicates that the content of hazardous substances or elements in the detection limit of the following the SJ/T11363-2006 standard. ×: Indicates that the content of hazardous substances or elements exceeding the SJ/T11363-2006 Standard limit requirements.									

6.2、Notes

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