74HC2G126; 74HCT2G126

Dual buffer/line driver; 3-state

Rev. 02 — 15 December 2005 | Product data sheet

1. General description

The 74HC2G126; 74HCT2G126 is a high-speed Si-gate CMOS device.

The 74HC2G126; 74HCT2G126 provides two non-inverting buffer/line drivers with 3-state output. The 3-state output is controlled by the output enable input pin (OE). A LOW at pin OE causes the output to assume a high-impedance OFF-state.

The bus driver output currents are equal compared to the 74HC126 and 74HCT126.

2. Features

- Wide operating voltage from 2.0 V to 6.0 V
- Symmetrical output impedance
- High noise immunity
- Low power dissipation
- Balanced propagation delays
- ESD protection:
  - HBM EIA/JESD22-A114-C exceeds 2000 V
  - MM EIA/JESD22-A115-A exceeds 200 V
- Very small 8 pins package
- Specified from –40 °C to +85 °C and –40 °C to +125 °C

3. Quick reference data

Table 1: Quick reference data

GND = 0 V; T_{amb} = 25 °C; $t_r = t_f = \leq 6$ ns.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
74HC2G126						
t_{PHL}, t_{PLH}	propagation delay nA to nY	V_{CC} = 5 V; C_L = 15 pF	-	10	-	ns
C_i	input capacitance		-	1	-	pF
C_o	output capacitance		-	1.5	-	pF
C_{PD}	power dissipation capacitance	per buffer; V_I = GND to V_{CC} [1]				
		output enabled	-	11	-	pF
		output disabled	-	1	-	pF
74HCT2G126						
t_{PHL}, t_{PLH}	propagation delay nA to nY	V_{CC} = 5 V; C_L = 15 pF	-	12	-	ns

PHILIPS

Table 1: Quick reference data *...continued*

GND = 0 V; T_{amb} = 25 °C; t_r = t_f = ≤ 6 ns.

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
C_i	input capacitance			-	1	-	pF
C_o	output capacitance			-	1.5	-	pF
C_{PD}	power dissipation capacitance	per buffer; V_I = GND to (V_{CC} − 1.5 V)	[1]				
		output enabled		-	11	-	pF
		output disabled		-	1	-	pF

[1] C_{PD} is used to determine the dynamic power dissipation (P_D in μW).
$P_D = C_{PD} \times V_{CC}^2 \times f_i \times N + \Sigma(C_L \times V_{CC}^2 \times f_o)$ 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;
$\Sigma(C_L \times V_{CC}^2 \times f_o)$ = sum of the outputs.

4. Ordering information

Table 2: Ordering information

Type number	Package			
	Temperature range	Name	Description	Version
74HC2G126				
74HC2G126DP	–40 °C to +125 °C	TSSOP8	plastic thin shrink small outline package; 8 leads; body width 3 mm; lead length 0.5 mm	SOT505-2
74HC2G126DC	–40 °C to +125 °C	VSSOP8	plastic very thin shrink small outline package; 8 leads; body width 2.3 mm	SOT765-1
74HCT2G126				
74HCT2G126DP	–40 °C to +125 °C	TSSOP8	plastic thin shrink small outline package; 8 leads; body width 3 mm; lead length 0.5 mm	SOT505-2
74HCT2G126DC	–40 °C to +125 °C	VSSOP8	plastic very thin shrink small outline package; 8 leads; body width 2.3 mm	SOT765-1

5. Functional diagram

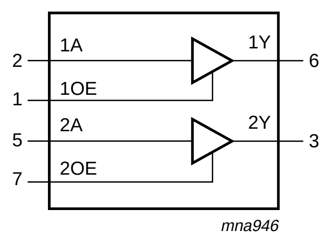


Fig 1. Logic symbol

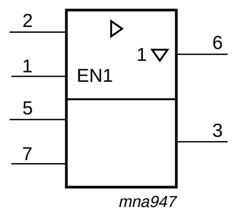


Fig 2. IEC logic symbol

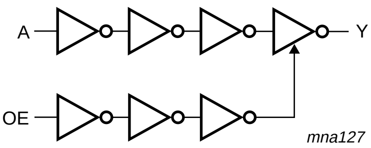


Fig 3. Logic diagram (one driver)

6. Pinning information

6.1 Pinning

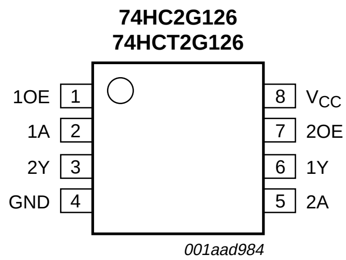


Fig 4. Pin configuration

6.2 Pin description

Table 3: Pin description

Symbol	Pin	Description
1OE	1	1 output enable input
1A	2	1 data input
2Y	3	2 data output
GND	4	ground (0 V)
2A	5	2 data input
1Y	6	1 data output
2OE	7	2 output enable input
V_{CC}	8	supply voltage

7. Functional description

7.1 Function table

Table 4: Function table [1]

Control	Input	Output
nOE	nA	nY
H	L	L
	H	H
L	X	Z

[1] H = HIGH voltage level;
L = LOW voltage level;
X = don't care;
Z = high-impedance OFF-state.

8. Limiting values

Table 5: Limiting values

In accordance with the Absolute Maximum Rating System (IEC 60134). Voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Max	Unit
V_{CC}	supply voltage		–0.5	+7.0	V
I_{IK}	input clamping current	$V_I < -0.5$ V or $V_I > V_{CC} + 0.5$ V	-	±20	mA
I_{OK}	output clamping current	$V_O < -0.5$ V or $V_O > V_{CC} + 0.5$ V	-	±20	mA
I_O	output current	$V_O = -0.5$ V to (V_{CC} + 0.5 V)	-	±35	mA
I_{CC}	quiescent supply current		-	70	mA
I_{GND}	ground current		-	–70	mA
T_{stg}	storage temperature		–65	+150	°C
P_{tot}	total power dissipation	[1]	-	300	mW

[1] Above 110 °C the value of P_{tot} derates linearly with 8 mW/K.

9. Recommended operating conditions

Table 6: Recommended operating conditions

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
74HC2G126						
V_{CC}	supply voltage		2.0	5.0	6.0	V
V_I	input voltage		0	-	V_{CC}	V
V_O	output voltage		0	-	V_{CC}	V
T_{amb}	ambient temperature		–40	+25	+125	°C
t_r, t_f	input rise and fall times	V_{CC} = 2.0 V	-	-	1 000	ns
		V_{CC} = 4.5 V	-	6.0	500	ns
		V_{CC} = 6.0 V	-	-	400	ns

Table 6: Recommended operating conditions *…continued*

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
74HCT2G126						
V_{CC}	supply voltage		4.5	5.0	5.5	V
V_I	input voltage		0	-	V_{CC}	V
V_O	output voltage		0	-	V_{CC}	V
T_{amb}	ambient temperature		–40	+25	+125	°C
t_r, t_f	input rise and fall times	V_{CC} = 4.5 V	-	6.0	500	ns

10. Static characteristics

Table 7: Static characteristics 74HC2G126

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_{amb} = –40 °C to +85 °C [1]						
V_{IH}	HIGH-state input voltage	V_{CC} = 2.0 V	1.5	1.2	-	V
		V_{CC} = 4.5 V	3.15	2.4	-	V
		V_{CC} = 6.0 V	4.2	3.2	-	V
V_{IL}	LOW-state input voltage	V_{CC} = 2.0 V	-	0.8	0.5	V
		V_{CC} = 4.5 V	-	2.1	1.35	V
		V_{CC} = 6.0 V	-	2.8	1.8	V
V_{OH}	HIGH-state output voltage	V_I = V_{IH} or V_{IL}				
		I_O = –20 μA; V_{CC} = 2.0 V	1.9	2.0	-	V
		I_O = –20 μA; V_{CC} = 4.5 V	4.4	4.5	-	V
		I_O = –20 μA; V_{CC} = 6.0 V	5.9	6.0	-	V
		I_O = –6.0 mA; V_{CC} = 4.5 V	3.84	4.32	-	V
		I_O = –7.8 mA; V_{CC} = 6.0 V	5.34	5.81	-	V
V_{OL}	LOW-state output voltage	V_I = V_{IH} or V_{IL}				
		I_O = 20 μA; V_{CC} = 2.0 V	-	0	0.1	V
		I_O = 20 μA; V_{CC} = 4.5 V	-	0	0.1	V
		I_O = 20 μA; V_{CC} = 6.0 V	-	0	0.1	V
		I_O = 6.0 mA; V_{CC} = 4.5 V	-	0.15	0.33	V
		I_O = 7.8 mA; V_{CC} = 6.0 V	-	0.16	0.33	V
I_{LI}	input leakage current	V_I = V_{CC} or GND; V_{CC} = 6.0 V			±1.0	μA
I_{OZ}	OFF-state output current	V_I = V_{IH} or V_{IL}; V_O = V_{CC} or GND; V_{CC} = 6.0 V			±5.0	μA
I_{CC}	quiescent supply current	V_I = V_{CC} or GND; I_O = 0 A; V_{CC} = 6.0 V			10.0	μA
C_i	input capacitance		-	1	-	pF
C_o	output capacitance		-	1.5	-	pF

Table 7: Static characteristics 74HC2G126 *...continued*

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_{amb} = –40 °C to +125 °C						
V_{IH}	HIGH-state input voltage	V_{CC} = 2.0 V	1.5	-	-	V
		V_{CC} = 4.5 V	3.15	-	-	V
		V_{CC} = 6.0 V	4.2	-	-	V
V_{IL}	LOW-state input voltage	V_{CC} = 2.0 V	-	-	0.5	V
		V_{CC} = 4.5 V	-	-	1.35	V
		V_{CC} = 6.0 V	-	-	1.8	V
V_{OH}	HIGH-state output voltage	$V_I = V_{IH}$ or V_{IL}				
		I_O = –20 μA; V_{CC} = 2.0 V	1.9	-	-	V
		I_O = –20 μA; V_{CC} = 4.5 V	4.4	-	-	V
		I_O = –20 μA; V_{CC} = 6.0 V	5.9	-	-	V
		I_O = –6.0 mA; V_{CC} = 4.5 V	3.7	-	-	V
		I_O = –7.8 mA; V_{CC} = 6.0 V	5.2	-	-	V
V_{OL}	LOW-state output voltage	$V_I = V_{IH}$ or V_{IL}				
		I_O = 20 μA; V_{CC} = 2.0 V	-	-	0.1	V
		I_O = 20 μA; V_{CC} = 4.5 V	-	-	0.1	V
		I_O = 20 μA; V_{CC} = 6.0 V	-	-	0.1	V
		I_O = 6.0 mA; V_{CC} = 4.5 V	-	-	0.4	V
		I_O = 7.8 mA; V_{CC} = 6.0 V	-	-	0.4	V
I_{LI}	input leakage current	$V_I = V_{CC}$ or GND; V_{CC} = 6.0 V	-	-	±1.0	μA
I_{OZ}	OFF-state output current	$V_I = V_{IH}$ or V_{IL}; $V_O = V_{CC}$ or GND; V_{CC} = 6.0 V	-	-	±10.0	μA
I_{CC}	quiescent supply current	$V_I = V_{CC}$ or GND; I_O = 0 A; V_{CC} = 6.0 V	-	-	20.0	μA

[1] All typical values are measured at T_{amb} = 25 °C.

Table 8: Static characteristics 74HCT2G126

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_{amb} = –40 °C to +85 °C [1]						
V_{IH}	HIGH-state input voltage	V_{CC} = 4.5 V to 5.5 V	2.0	1.6	-	V
V_{IL}	LOW-state input voltage	V_{CC} = 4.5 V to 5.5 V	-	1.2	0.8	V
V_{OH}	HIGH-state output voltage	$V_I = V_{IH}$ or V_{IL}				
		I_O = –20 μA; V_{CC} = 4.5 V	4.4	4.5	-	V
		I_O = –6.0 mA; V_{CC} = 4.5 V	3.84	4.32	-	V
V_{OL}	LOW-state output voltage	$V_I = V_{IH}$ or V_{IL}				V
		I_O = 20 μA; V_{CC} = 4.5 V	-	0	0.1	V
		I_O = 6.0 mA; V_{CC} = 4.5 V	-	0.16	0.33	V
I_{LI}	input leakage current	$V_I = V_{CC}$ or GND; V_{CC} = 5.5 V	-	-	±1.0	μA
I_{OZ}	3-state output OFF current	$V_I = V_{IH}$ or V_{IL}; $V_O = V_{CC}$ or GND; V_{CC} = 5.5 V	-	-	±5.0	μA

Table 8: Static characteristics 74HCT2G126 *...continued*

At recommended operating conditions; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
I_{CC}	quiescent supply current	$V_I = V_{CC}$ or GND; $I_O = 0$ A; $V_{CC} = 5.5$ V	-	-	10.0	μA
ΔI_{CC}	additional quiescent supply current	per input; $V_I = V_{CC} - 2.1$ V; $I_O = 0$ A; $V_{CC} = 4.5$ V to 5.5 V	-	-	375	μA
C_i	input capacitance		-	1	-	pF
C_o	output capacitance		-	1.5	-	pF
T_{amb} = −40 °C to +125 °C						
V_{IH}	HIGH-state input voltage	$V_{CC} = 4.5$ V to 5.5 V	2.0	-	-	V
V_{IL}	LOW-state input voltage	$V_{CC} = 4.5$ V to 5.5 V	-	-	0.8	V
V_{OH}	HIGH-state output voltage	$V_I = V_{IH}$ or V_{IL}				
		$I_O = -20$ μA; $V_{CC} = 4.5$ V	4.4	-	-	V
		$I_O = -6.0$ mA; $V_{CC} = 4.5$ V	3.7	-	-	V
V_{OL}	LOW-state output voltage	$V_I = V_{IH}$ or V_{IL}				V
		$I_O = 20$ μA; $V_{CC} = 4.5$ V	-	-	0.1	V
		$I_O = 6.0$ mA; $V_{CC} = 4.5$ V	-	-	0.4	V
I_{LI}	input leakage current	$V_I = V_{CC}$ or GND; $V_{CC} = 5.5$ V	-	-	±1.0	μA
I_{OZ}	3-state output OFF current	$V_I = V_{IH}$ or V_{IL}; $V_O = V_{CC}$ or GND; $V_{CC} = 5.5$ V	-	-	±10.0	μA
I_{CC}	quiescent supply current	$V_I = V_{CC}$ or GND; $I_O = 0$ A; $V_{CC} = 5.5$ V	-	-	20.0	μA
ΔI_{CC}	additional quiescent supply current	per input; $V_I = V_{CC} - 2.1$ V; $I_O = 0$ A; $V_{CC} = 4.5$ V to 5.5 V	-	-	410	μA

[1] All typical values are measured at $T_{amb} = 25$ °C.

11. Dynamic characteristics

Table 9: Dynamic characteristics 74HC2G126

Voltages are referenced to GND (ground = 0 V); $C_L = 50$ pF unless otherwise specified; for test circuit see Figure 7.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_{amb} = −40 °C to +85 °C [1]						
t_{PHL}, t_{PLH}	propagation delay nA to nY	see Figure 5				
		$V_{CC} = 2.0$ V	-	35	115	ns
		$V_{CC} = 4.5$ V	-	11	23	ns
		$V_{CC} = 5$ V; $C_L = 15$ pF	-	10	-	ns
		$V_{CC} = 6.0$ V	-	8	20	ns
t_{PZH}, t_{PZL}	3-state output enable time nOE to nY	see Figure 6				
		$V_{CC} = 2.0$ V	-	40	115	ns
		$V_{CC} = 4.5$ V	-	11	23	ns
		$V_{CC} = 6.0$ V	-	8	20	ns

Table 9: Dynamic characteristics 74HC2G126 *...continued*

Voltages are referenced to GND (ground = 0 V); C_L = 50 pF unless otherwise specified; for test circuit see Figure 7.

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
t_{PHZ}, t_{PLZ}	3-state output disable time nOE to nY	see Figure 6					
		V_{CC} = 2.0 V		-	25	125	ns
		V_{CC} = 4.5 V		-	12	25	ns
		V_{CC} = 6.0 V		-	10	21	ns
t_{THL}, t_{TLH}	output transition time	see Figure 5					
		V_{CC} = 2.0 V		-	18	75	ns
		V_{CC} = 4.5 V		-	6	15	ns
		V_{CC} = 6.0 V		-	5	13	ns
C_{PD}	power dissipation capacitance	V_I = GND to V_{CC}	[2]				
		output enabled		-	11	-	pF
		output disabled		-	1	-	pF
T_{amb} = −40 °C to +125 °C							
t_{PHL}, t_{PLH}	propagation delay nA to nY	see Figure 5					
		V_{CC} = 2.0 V		-	-	135	ns
		V_{CC} = 4.5 V		-	-	27	ns
		V_{CC} = 6.0 V		-	-	23	ns
t_{PZH}, t_{PZL}	3-state output enable time nOE to nY	see Figure 6					
		V_{CC} = 2.0 V		-	-	135	ns
		V_{CC} = 4.5 V		-	-	27	ns
		V_{CC} = 6.0 V		-	-	23	ns
t_{PHZ}, t_{PLZ}	3-state output disable time nOE to nY	see Figure 6					
		V_{CC} = 2.0 V		-	-	150	ns
		V_{CC} = 4.5 V		-	-	30	ns
		V_{CC} = 6.0 V		-	-	26	ns
t_{THL}, t_{TLH}	output transition time	see Figure 5					
		V_{CC} = 2.0 V		-	-	90	ns
		V_{CC} = 4.5 V		-	-	18	ns
		V_{CC} = 6.0 V		-	-	15	ns

[1] All typical values are measured at T_{amb} = 25 °C.

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

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

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

Table 10: Dynamic characteristics 74HCT2G126

Voltages are referenced to GND (ground = 0 V); C_L = 50 pF unless otherwise specified; for test circuit see Figure 7.

Symbol	Parameter	Conditions		Min	Typ	Max	Unit
T_{amb} = −40 °C to +85 °C [1]							
t_{PHL}, t_{PLH}	propagation delay nA to nY	see Figure 5					
		V_{CC} = 4.5 V		-	15	30	ns
		V_{CC} = 5 V; C_L = 15 pF		-	12	-	ns
t_{PZH}, t_{PZL}	3-state output enable time nOE to nY	V_{CC} = 4.5 V; see Figure 6		-	11	31	ns
t_{PHZ}, t_{PLZ}	3-state output disable time nOE to nY	V_{CC} = 4.5 V; see Figure 6		-	11	35	ns
t_{THL}, t_{TLH}	output transition time	V_{CC} = 4.5 V; see Figure 5		-	6	15	ns
C_{PD}	power dissipation capacitance	V_I = GND to (V_{CC} − 1.5 V)	[2]				
		output enabled		-	11	-	pF
		output disabled		-	1	-	pF
T_{amb} = −40 °C to +125 °C							
t_{PHL}, t_{PLH}	propagation delay nA to nY	V_{CC} = 4.5 V; see Figure 5		-	-	36	ns
t_{PZH}, t_{PZL}	3-state output enable time nOE to nY	V_{CC} = 4.5 V; see Figure 6		-	-	38	ns
t_{PHZ}, t_{PLZ}	3-state output disable time nOE to nY	V_{CC} = 4.5 V; see Figure 6		-	-	42	ns
t_{THL}, t_{TLH}	output transition time	V_{CC} = 4.5 V; see Figure 5		-	-	18	ns

[1] All typical values are measured at T_{amb} = 25 °C.

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

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

f_i = input frequency in MHz;

f_o = output frequency in MHz;

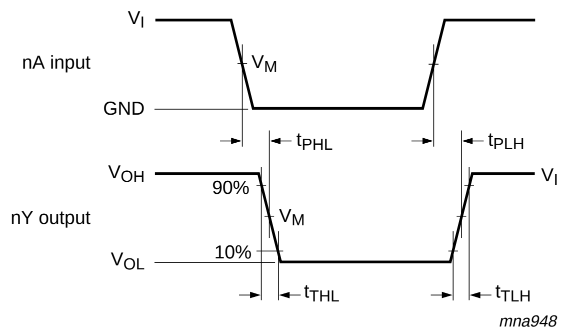
C_L = output load capacitance in pF;

V_{CC} = supply voltage in V;

N = number of inputs switching;

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

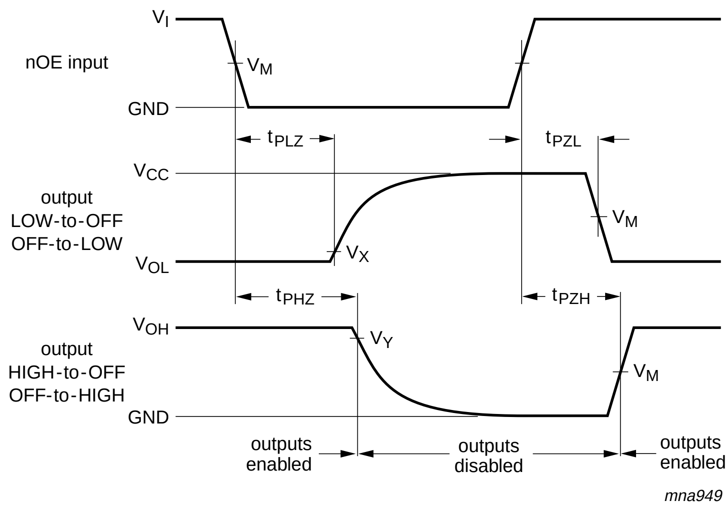
12. Waveforms



Measurement points are given in Table 11.

V_{OL} and V_{OH} are typical voltage output drop that occur with the output load.

Fig 5. Propagation delay input (nA) to output (nY) and transition time output (nY)



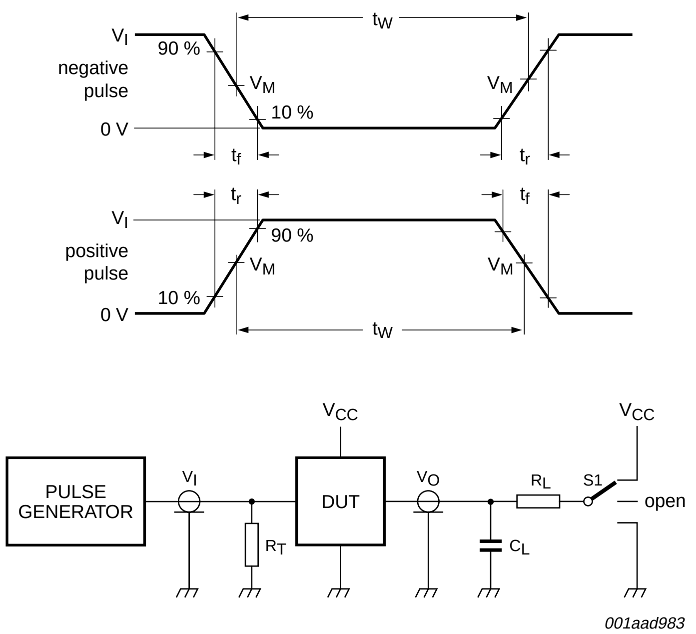
Measurement points are given in Table 11.

V_{OL} and V_{OH} are typical voltage output drop that occur with the output load.

Fig 6. 3-state enable and disable times

Table 11: Measurement points

Type	Input	Output
	V_M	V_M
74HC2G126	$0.5V_{CC}$	$0.5V_{CC}$
74HCT2G126	1.3 V	1.3 V



Test data is given in Table 12.

Definitions test circuit:

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

C_L = Load capacitance including jig and probe capacitance

R_L = Load resistance

S1 = Test selection switch

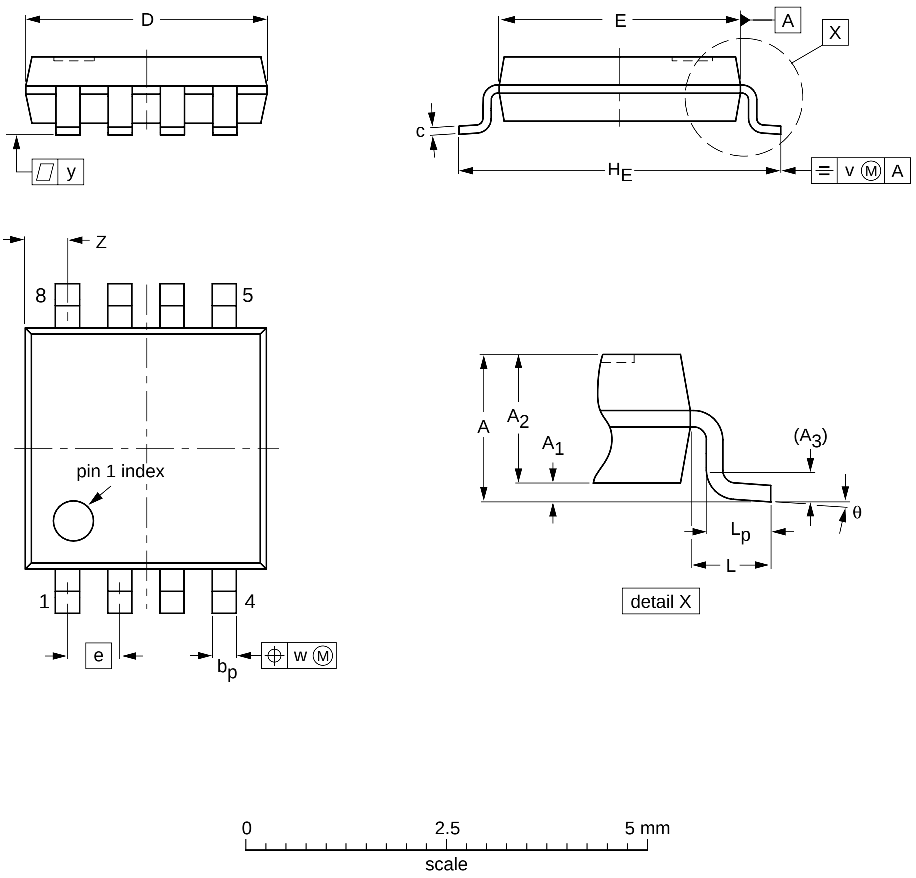
Fig 7. Load circuitry for measuring switching times

Table 12: Test data

Type	Input		Load		S1 position		
	V_I	t_r, t_f	C_L	R_L	t_{PHL}, t_{PLH}	t_{PZH}, t_{PHZ}	t_{PZL}, t_{PLZ}
74HC2G126	V_{CC}	6 ns	15 pF, 50 pF	1 kΩ	open	GND	V_{CC}
74HCT2G126	3 V	6 ns	15 pF, 50 pF	1 kΩ	open	GND	V_{CC}

13. Package outline

TSSOP8: plastic thin shrink small outline package; 8 leads; body width 3 mm; lead length 0.5 mm SOT505-2



DIMENSIONS (mm are the original dimensions)

UNIT	A max.	A_1	A_2	A_3	b_p	c	$D^{(1)}$	$E^{(1)}$	e	H_E	L	L_p	v	w	y	$Z^{(1)}$	θ
mm	1.1	0.15 0.00	0.95 0.75	0.25	0.38 0.22	0.18 0.08	3.1 2.9	3.1 2.9	0.65	4.1 3.9	0.5	0.47 0.33	0.2	0.13	0.1	0.70 0.35	8° 0°

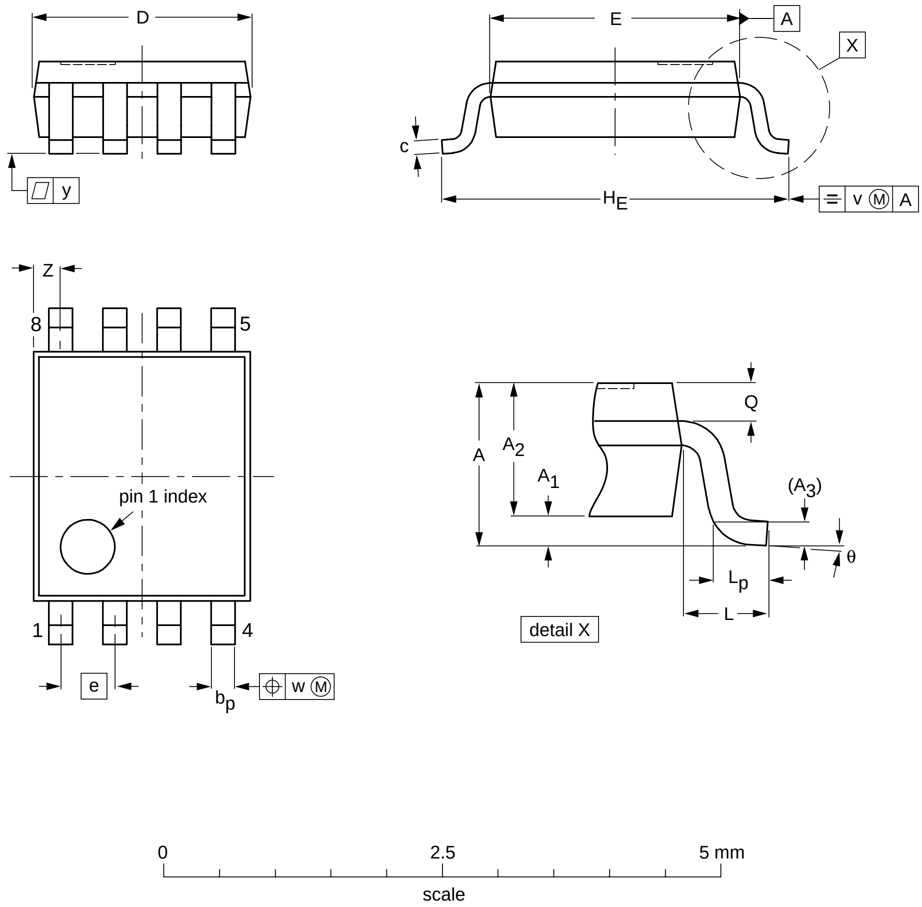
Note

1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA			
SOT505-2		- - -				02-01-16

Fig 8. Package outline SOT505-2 (TSSOP8)

VSSOP8: plastic very thin shrink small outline package; 8 leads; body width 2.3 mm **SOT765-1**



DIMENSIONS (mm are the original dimensions)

UNIT	A max.	A_1	A_2	A_3	b_p	c	D[(1)]	E[(2)]	e	H_E	L	L_p	Q	v	w	y	Z[(1)]	θ
mm	1	0.15 0.00	0.85 0.60	0.12	0.27 0.17	0.23 0.08	2.1 1.9	2.4 2.2	0.5	3.2 3.0	0.4	0.40 0.15	0.21 0.19	0.2	0.13	0.1	0.4 0.1	8° 0°

Notes

1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.
2. Plastic or metal protrusions of 0.25 mm maximum per side are not included.

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA			
SOT765-1		MO-187				02-06-07

Fig 9. Package outline SOT765-1 (VSSOP8)

14. Abbreviations

Table 13: Abbreviations

Acronym	Description
CMOS	Complementary Metal Oxide Semiconductor
DUT	Device Under Test
ESD	ElectroStatic Discharge
HBM	Human Body Model
MM	Machine Model

15. Revision history

Table 14: Revision history

Document ID	Release date	Data sheet status	Change notice	Doc. number	Supersedes
74HC_HCT2G126_2	20051215	Product data sheet	-	-	74HC_HCT2G126_1
Modifications:	• The format of this data sheet has been redesigned to comply with the new presentation and information standard of Philips Semiconductors. • Table 7 "Static characteristics 74HC2G126"; section T_{amb} = –40 °C to +85 °C: – V_{OH} minimum value at I_O = –6.0 mA and V_{CC} = 4.5 V: changed 4.13 to 3.84 – V_{OH} minimum value at I_O = –7.8 mA and V_{CC} = 6.0 V: changed 5.63 to 5.34 • Table 7 "Static characteristics 74HC2G126"; section T_{amb} = –40 °C to +125 °C: – I_{OZ} maximum value changed from 10.4 µA to 10.0 µA • Table 8 "Static characteristics 74HCT2G126"; section T_{amb} = –40 °C to +85 °C: – V_{OH} minimum value at I_O = –6.0 mA and V_{CC} = 4.5 V: changed 4.13 to 3.84 – V_{OL} typical value at I_O = 6.0 mA and V_{CC} = 4.5 V: changed 0.15 to 0.16 • Table 8 "Static characteristics 74HCT2G126"; section T_{amb} = –40 °C to +125 °C: – I_{OZ} maximum value changed from 10.4 µA to 10.0 µA				
74HC_HCT2G126_1	20030303	Product data sheet	-	9397 750 10642	-

16. Data sheet status

Level	Data sheet status [1]	Product status [2] [3]	Definition
I	Objective data	Development	This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice.
II	Preliminary data	Qualification	This data sheet contains data from the preliminary specification. Supplementary data will be published at a later date. Philips Semiconductors reserves the right to change the specification without notice, in order to improve the design and supply the best possible product.
III	Product data	Production	This data sheet contains data from the product specification. Philips Semiconductors reserves the right to make changes at any time in order to improve the design, manufacturing and supply. Relevant changes will be communicated via a Customer Product/Process Change Notification (CPCN).

[1] Please consult the most recently issued data sheet before initiating or completing a design.

[2] The product status of the device(s) described in this data sheet may have changed since this data sheet was published. The latest information is available on the Internet at URL http://www.semiconductors.philips.com.

[3] For data sheets describing multiple type numbers, the highest-level product status determines the data sheet status.

17. Definitions

Short-form specification — The data in a short-form specification is extracted from a full data sheet with the same type number and title. For detailed information see the relevant data sheet or data handbook.

Limiting values definition — Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.

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21. Contents

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