

# 74HC1G66-Q100; 74HCT1G66-Q100

Single-pole single-throw analog switch

Rev. 1 — 16 September 2013

Product data sheet

## 1. General description

The 74HC1G66-Q100; 74HCT1G66-Q100 is a single-pole, single-throw analog switch with two input/output terminals (nY and nZ) and a digital enable input (nE). When nE is LOW, the analog switch is turned off. Inputs include clamp diodes that enable the use of current limiting resistors to interface inputs to voltages in excess of  $V_{CC}$ .

This product has been qualified to the Automotive Electronics Council (AEC) standard Q100 (Grade 1) and is suitable for use in automotive applications.

## 2. Features and benefits

- Automotive product qualification in accordance with AEC-Q100 (Grade 1)
  - ◆ Specified from  $-40\text{ °C}$  to  $+85\text{ °C}$  and from  $-40\text{ °C}$  to  $+125\text{ °C}$
- Wide supply voltage range from 2.0 V to 10.0 V for the 74HC1G66-Q100
- Very low ON resistance:
  - ◆  $45\ \Omega$  (typ.) at  $V_{CC} = 4.5\text{ V}$
  - ◆  $30\ \Omega$  (typ.) at  $V_{CC} = 6.0\text{ V}$
  - ◆  $25\ \Omega$  (typ.) at  $V_{CC} = 9.0\text{ V}$
- High noise immunity
- Low power dissipation
- Multiple package options
- ESD protection:
  - ◆ MIL-STD-883, method 3015 exceeds 2000 V
  - ◆ HBM JESD22-A114F exceeds 2000 V
  - ◆ MM JESD22-A115-A exceeds 200 V ( $C = 200\text{ pf}$ ,  $R = 0\ \Omega$ )

## 3. Ordering information

Table 1. Ordering information

Type number	Package			
	Temperature range	Name	Description	Version
74HC1G66GW-Q100 74HCT1G66GW-Q100	$-40\text{ °C}$ to $+125\text{ °C}$	TSSOP5	plastic thin shrink small outline package; 5 leads; body width 1.25 mm	SOT353-1
74HC1G66GV-Q100 74HCT1G66GV-Q100	$-40\text{ °C}$ to $+125\text{ °C}$	SC-74A	plastic surface-mounted package; 5 leads	SOT753

## 4. Marking

Table 2. Marking codes

Type number	Marking
74HC1G66GW-Q100	HL
74HCT1G66GW-Q100	TL
74HC1G66GV-Q100	H66
74HCT1G66GV-Q100	T66

## 5. Functional diagram

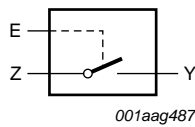


Fig 1. Logic symbol

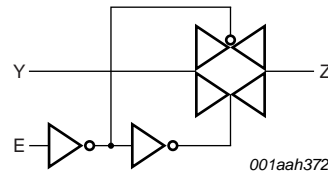


Fig 2. Logic diagram

## 6. Pinning information

### 6.1 Pinning

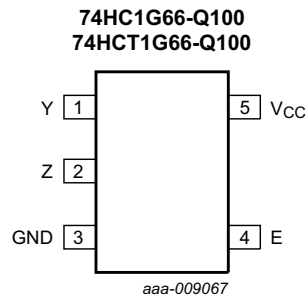


Fig 3. Pin configuration SOT353-1 and SOT753

### 6.2 Pin description

Table 3. Pin description

Symbol	Pin	Description
Y	1	independent input or output
Z	2	independent input or output
GND	3	ground (0 V)
E	4	enable input (active HIGH)
V <sub>CC</sub>	5	supply voltage

## 7. Functional description

Table 4. Function table<sup>[1]</sup>

Input E	Switch
L	OFF
H	ON

[1] H = HIGH voltage level; L = LOW voltage level.

## 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	+11.0	V
$I_{IK}$	input clamping current	$V_I < -0.5\text{ V}$ or $V_I > V_{CC} + 0.5\text{ V}$	[1] -	$\pm 20$	mA
$I_{SK}$	switch clamping current	$V_I < -0.5\text{ V}$ or $V_I > V_{CC} + 0.5\text{ V}$	[1] -	$\pm 20$	mA
$I_{SW}$	switch current	$V_{SW} > -0.5\text{ V}$ or $V_{SW} < V_{CC} + 0.5\text{ V}$	-	$\pm 25$	mA
$I_{CC}$	supply current		-	50	mA
$I_{GND}$	ground current		-50	-	mA
$T_{stg}$	storage temperature		-65	+150	°C
$P_{tot}$	total power dissipation	$T_{amb} = -40\text{ °C}$ to $+125\text{ °C}$	[2] -	250	mW

[1] The input and output voltage ratings may be exceeded if the input and output current ratings are observed.

[2] For TSSOP5 and SC-74A packages: above 87.5 °C the value of  $P_{tot}$  derates linearly with 4.0 mW/K.

## 9. Recommended operating conditions

Table 6. Recommended operating conditions

Voltages are referenced to GND (ground = 0 V).<sup>[1]</sup>

Symbol	Parameter	Conditions	74HC1G66-Q100			74HCT1G66-Q100			Unit
			Min	Typ	Max	Min	Typ	Max	
$V_{CC}$	supply voltage		2.0	5.0	10.0	4.5	5.0	5.5	V
$V_I$	input voltage		0	-	$V_{CC}$	0	-	$V_{CC}$	V
$V_{SW}$	switch voltage		0	-	$V_{CC}$	0	-	$V_{CC}$	V
$T_{amb}$	ambient temperature		-40	+25	+125	-40	+25	+125	°C
$\Delta t/\Delta V$	input transition rise and fall rate	$V_{CC} = 2.0\text{ V}$	-	-	625	-	-	-	ns/V
		$V_{CC} = 4.5\text{ V}$	-	1.67	139	-	1.67	139	ns/V
		$V_{CC} = 6.0\text{ V}$	-	-	83	-	-	-	ns/V
		$V_{CC} = 10.0\text{ V}$	-	-	35	-	-	-	ns/V

[1] To avoid drawing  $V_{CC}$  current from pin Z, when switch current flows in pin Y, the voltage drop across the bidirectional switch must not exceed 0.4 V. If the switch current flows into pin Z, no  $V_{CC}$  current flows from terminal Y. In this case, the voltage drop across the switch is unlimited, but the voltage at pins Y and Z may not exceed  $V_{CC}$  or GND.

## 10. Static characteristics

**Table 7. Static characteristics**

Voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	-40 °C to +85 °C			-40 °C to +125 °C		Unit
			Min	Typ <sup>[1]</sup>	Max	Min	Max	
<b>74HC1G66-Q100</b>								
V <sub>IH</sub>	HIGH-level input voltage	V <sub>CC</sub> = 2.0 V	1.5	1.2	-	1.5	-	V
		V <sub>CC</sub> = 4.5 V	3.15	2.4	-	3.15	-	V
		V <sub>CC</sub> = 6.0 V	4.2	3.2	-	4.2	-	V
		V <sub>CC</sub> = 9.0 V	6.3	4.7	-	6.3	-	V
V <sub>IL</sub>	LOW-level input voltage	V <sub>CC</sub> = 2.0 V	-	0.8	0.5	-	0.5	V
		V <sub>CC</sub> = 4.5 V	-	2.1	1.35	-	1.35	V
		V <sub>CC</sub> = 6.0 V	-	2.8	1.8	-	1.8	V
		V <sub>CC</sub> = 9.0 V	-	4.3	2.7	-	2.7	V
I <sub>I</sub>	input leakage current	E; V <sub>I</sub> = V <sub>CC</sub> or GND						
		V <sub>CC</sub> = 6.0 V	-	0.1	1.0	-	1.0	μA
		V <sub>CC</sub> = 10.0 V	-	0.2	2.0	-	2.0	μA
I <sub>S(OFF)</sub>	OFF-state leakage current	Y or Z; V <sub>CC</sub> = 10 V; see <a href="#">Figure 4</a>	-	0.1	1.0	-	1.0	μA
I <sub>S(ON)</sub>	ON-state leakage current	Y or Z; V <sub>CC</sub> = 10 V; see <a href="#">Figure 5</a>	-	0.1	1.0	-	1.0	μA
I <sub>CC</sub>	supply current	E, Y or Z; V <sub>I</sub> = V <sub>CC</sub> or GND; V <sub>SW</sub> = GND or V <sub>CC</sub>						
		V <sub>CC</sub> = 6.0 V	-	1.0	10	-	20	μA
		V <sub>CC</sub> = 10.0 V	-	2.0	20	-	40	μA
C <sub>I</sub>	input capacitance		-	1.5	-	-	-	pF
C <sub>S(ON)</sub>	ON-state capacitance		-	8	-	-	-	pF

**Table 7. Static characteristics ...continued**  
 Voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	-40 °C to +85 °C			-40 °C to +125 °C		Unit
			Min	Typ <sup>[1]</sup>	Max	Min	Max	
<b>74HCT1G66-Q100</b>								
V <sub>IH</sub>	HIGH-level input voltage	V <sub>CC</sub> = 4.5 V to 5.5 V	2.0	1.6	-	2.0	-	V
V <sub>IL</sub>	LOW-level input voltage	V <sub>CC</sub> = 4.5 V to 5.5 V	0.1	1.2	0.8	-	0.8	V
I <sub>I</sub>	input leakage current	E; V <sub>I</sub> = V <sub>CC</sub> or GND; V <sub>CC</sub> = 5.5 V	-	0.1	1.0	-	1.0	μA
I <sub>S(OFF)</sub>	OFF-state leakage current	Y or Z; V <sub>CC</sub> = 5.5 V; see <a href="#">Figure 4</a>	-	0.1	1.0	-	1.0	μA
I <sub>S(ON)</sub>	ON-state leakage current	Y or Z; V <sub>CC</sub> = 5.5 V; see <a href="#">Figure 5</a>	-	0.1	1.0	-	1.0	μA
I <sub>CC</sub>	supply current	E, Y or Z; V <sub>I</sub> = V <sub>CC</sub> or GND; V <sub>SW</sub> = GND or V <sub>CC</sub> ; V <sub>CC</sub> = 4.5 V to 5.5 V	-	1	10	-	20	μA
ΔI <sub>CC</sub>	additional supply current	V <sub>I</sub> = V <sub>CC</sub> - 2.1 V; V <sub>CC</sub> = 4.5 V to 5.5 V; I <sub>O</sub> = 0 A	-	-	500	-	850	μA
C <sub>I</sub>	input capacitance		-	1.5	-	-	-	pF
C <sub>S(ON)</sub>	ON-state capacitance		-	8	-	-	-	pF

[1] Typical values are measured at T<sub>amb</sub> = 25 °C.

**10.1 Test circuits**

V<sub>I</sub> = V<sub>CC</sub> or GND and V<sub>O</sub> = GND or V<sub>CC</sub>.

**Fig 4. Test circuit for measuring OFF-state leakage current**

V<sub>I</sub> = V<sub>CC</sub> or GND and V<sub>O</sub> = open circuit.

**Fig 5. Test circuit for measuring ON-state leakage current**

## 10.2 ON resistance

**Table 8. ON resistance**

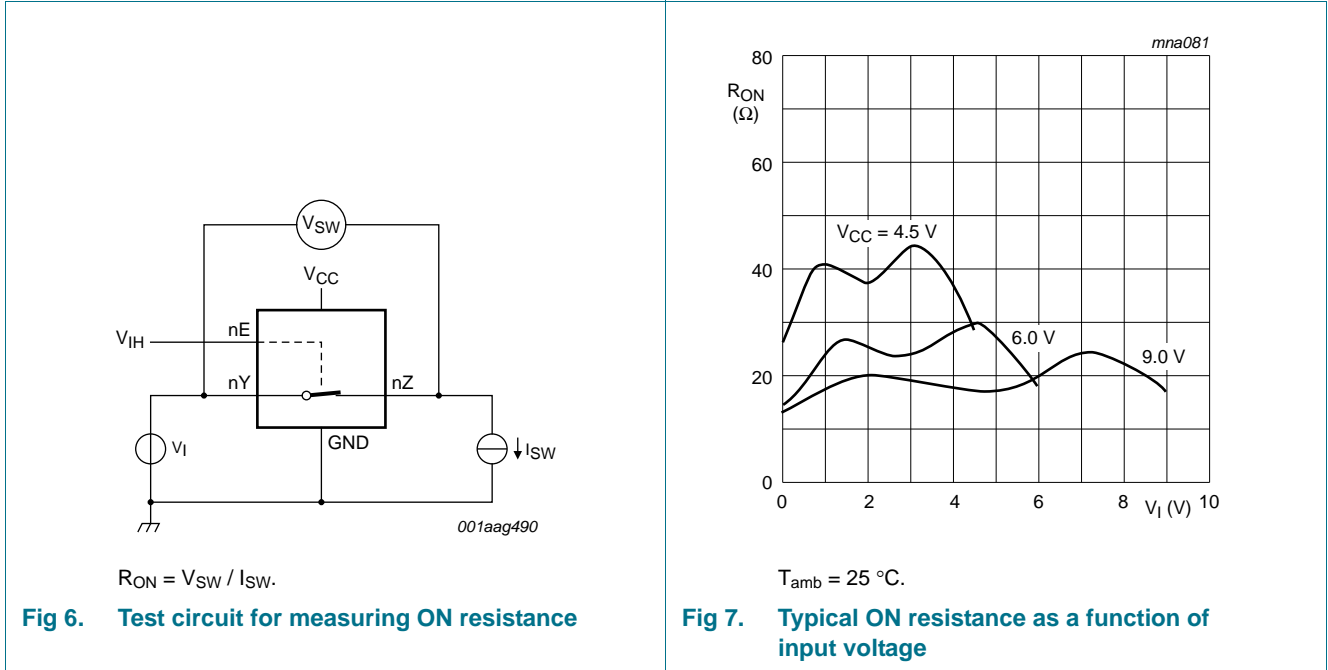
At recommended operating conditions; voltages are referenced to GND (ground 0 V); for graph see [Figure 7](#).

Symbol	Parameter	Conditions	–40 °C to +85 °C			–40 °C to +125 °C		Unit
			Min	Typ <sup>[2]</sup>	Max	Min	Max	
<b>74HC1G66-Q100<sup>[1]</sup></b>								
R <sub>ON(peak)</sub>	ON resistance (peak)	V <sub>I</sub> = GND to V <sub>CC</sub> ; see <a href="#">Figure 6</a>						
		I <sub>SW</sub> = 0.1 mA; V <sub>CC</sub> = 2.0 V	-	-	-	-	-	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 4.5 V	-	42	118	-	142	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 6.0 V	-	31	105	-	126	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 9.0 V	-	23	88	-	105	Ω
R <sub>ON(rail)</sub>	ON resistance (rail)	V <sub>I</sub> = GND; see <a href="#">Figure 6</a>						
		I <sub>SW</sub> = 0.1 mA; V <sub>CC</sub> = 2.0 V	-	75	-	-	-	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 4.5 V	-	29	95	-	115	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 6.0 V	-	23	82	-	100	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 9.0 V	-	18	70	-	80	Ω
		V <sub>I</sub> = V <sub>CC</sub> ; see <a href="#">Figure 6</a>						
		I <sub>SW</sub> = 0.1 mA; V <sub>CC</sub> = 2.0 V	-	75	-	-	-	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 4.5 V	-	35	106	-	128	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 6.0 V	-	27	94	-	113	Ω
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 9.0 V	-	21	78	-	95	Ω
<b>74HCT1G66-Q100</b>								
R <sub>ON(peak)</sub>	ON resistance (peak)	V <sub>I</sub> = GND to V <sub>CC</sub> ; see <a href="#">Figure 6</a>						
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 4.5 V	-	42	118	-	142	Ω
R <sub>ON(rail)</sub>	ON resistance (rail)	V <sub>I</sub> = GND; see <a href="#">Figure 6</a>						
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 4.5 V	-	29	95	-	115	Ω
		V <sub>I</sub> = V <sub>CC</sub> ; see <a href="#">Figure 6</a>						
		I <sub>SW</sub> = 1 mA; V <sub>CC</sub> = 4.5 V	-	35	106	-	128	Ω

[1] At supply voltages approaching 2 V, the ON resistance becomes extremely non-linear. Therefore it is recommended that these devices be used to transmit digital signals only, when using this supply voltage.

[2] Typical values are measured at T<sub>amb</sub> = 25 °C.

10.3 ON resistance test circuit and graphs



11. Dynamic characteristics

Table 9. Dynamic characteristics

Voltages are referenced to GND (ground = 0 V);  $C_L = 50\text{ pF}$ ;  $R_L = 1\text{ k}\Omega$ , unless otherwise specified; For test circuit, see Figure 10.

Symbol	Parameter	Conditions	-40 °C to +85 °C			-40 °C to +125 °C		Unit
			Min	Typ <sup>[1]</sup>	Max	Min	Max	
<b>74HC1G66-Q100</b>								
$t_{pd}$	propagation delay	Y to Z or Z to Y; $R_L = \infty\ \Omega$ ; see Figure 8		[2]				
		$V_{CC} = 2.0\text{ V}$	-	8	75	-	90	ns
		$V_{CC} = 4.5\text{ V}$	-	3	15	-	18	ns
		$V_{CC} = 6.0\text{ V}$	-	2	13	-	15	ns
		$V_{CC} = 9.0\text{ V}$	-	1	10	-	12	ns
$t_{en}$	enable time	E to Y or Z; see Figure 9		[2]				
		$V_{CC} = 2.0\text{ V}$	-	50	125	-	150	ns
		$V_{CC} = 4.5\text{ V}$	-	16	25	-	30	ns
		$V_{CC} = 5.0\text{ V}$ ; $C_L = 15\text{ pF}$	-	11	-	-	-	ns
		$V_{CC} = 6.0\text{ V}$	-	13	21	-	26	ns
		$V_{CC} = 9.0\text{ V}$	-	9	16	-	20	ns

**Table 9. Dynamic characteristics ...continued**

Voltages are referenced to GND (ground = 0 V);  $C_L = 50$  pF;  $R_L = 1$  k $\Omega$ , unless otherwise specified;  
For test circuit, see [Figure 10](#).

Symbol	Parameter	Conditions	-40 °C to +85 °C			-40 °C to +125 °C		Unit
			Min	Typ <sup>[1]</sup>	Max	Min	Max	
$t_{dis}$	disable time	E to Y or Z; see <a href="#">Figure 9</a> <a href="#">[2]</a>						
		$V_{CC} = 2.0$ V	-	27	190	-	225	ns
		$V_{CC} = 4.5$ V	-	16	38	-	45	ns
		$V_{CC} = 5.0$ V; $C_L = 15$ pF	-	11	-	-	-	ns
		$V_{CC} = 6.0$ V	-	14	33	-	38	ns
		$V_{CC} = 9.0$ V	-	12	16	-	20	ns
$C_{PD}$	power dissipation capacitance	$V_I = \text{GND to } V_{CC}$ <a href="#">[3]</a>	-	9	-	-	-	pF
<b>74HCT1G66-Q100</b>								
$t_{pd}$	propagation delay	Y to Z or Z to Y; $R_L = \infty$ $\Omega$ ; see <a href="#">Figure 8</a> <a href="#">[2]</a>						
		$V_{CC} = 4.5$ V	-	3	15	-	18	ns
$t_{en}$	enable time	E to Y or Z; see <a href="#">Figure 9</a> <a href="#">[2]</a>						
		$V_{CC} = 4.5$ V	-	15	30	-	36	ns
		$V_{CC} = 5.0$ V; $C_L = 15$ pF	-	12	-	-	-	ns
$t_{dis}$	disable time	E to Y or Z; see <a href="#">Figure 9</a> <a href="#">[2]</a>						
		$V_{CC} = 4.5$ V	-	13	44	-	53	ns
		$V_{CC} = 5.0$ V; $C_L = 15$ pF	-	12	-	-	-	ns
$C_{PD}$	power dissipation capacitance	$V_I = \text{GND to } V_{CC} - 1.5$ V <a href="#">[3]</a>	-	9	-	-	-	pF

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

[2]  $t_{pd}$  is the same as  $t_{PLH}$  and  $t_{PHL}$ .  
 $t_{en}$  is the same as  $t_{PZL}$  and  $t_{PZH}$ .  
 $t_{dis}$  is the same as  $t_{PLZ}$  and  $t_{PHZ}$ .

[3]  $C_{PD}$  is used to determine the dynamic power dissipation  $P_D$  ( $\mu$ W).

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

$f_i$  = input frequency in MHz;

$f_o$  = output frequency in MHz;

$C_L$  = output load capacitance in pF;

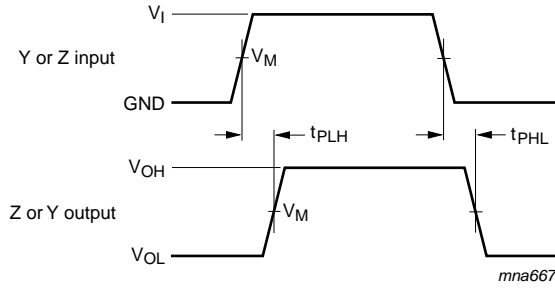
$C_{SW}$  = maximum switch capacitance in pF (see [Table 7](#));

$V_{CC}$  = supply voltage in Volt;

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



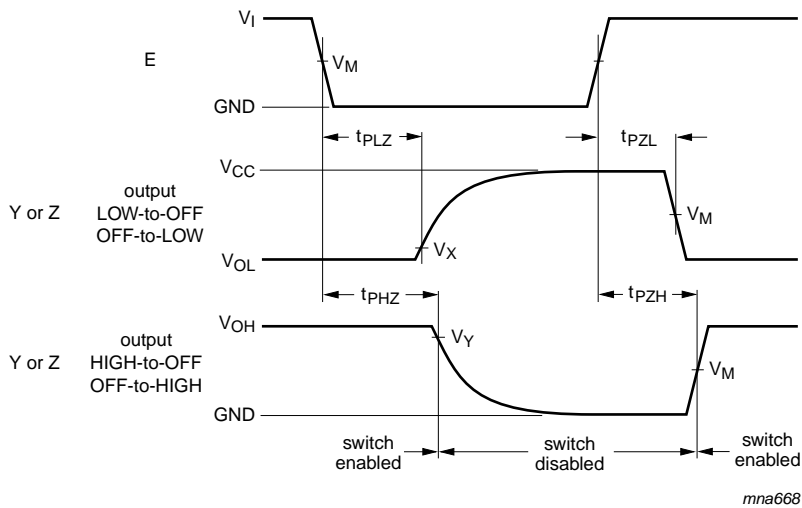
11.1 Waveforms and test circuit



Measurement points are given in [Table 10](#).

Logic levels:  $V_{OL}$  and  $V_{OH}$  are typical output voltage levels that occur with the output load.

Fig 8. Input (Y or Z) to output (Z or Y) propagation delays



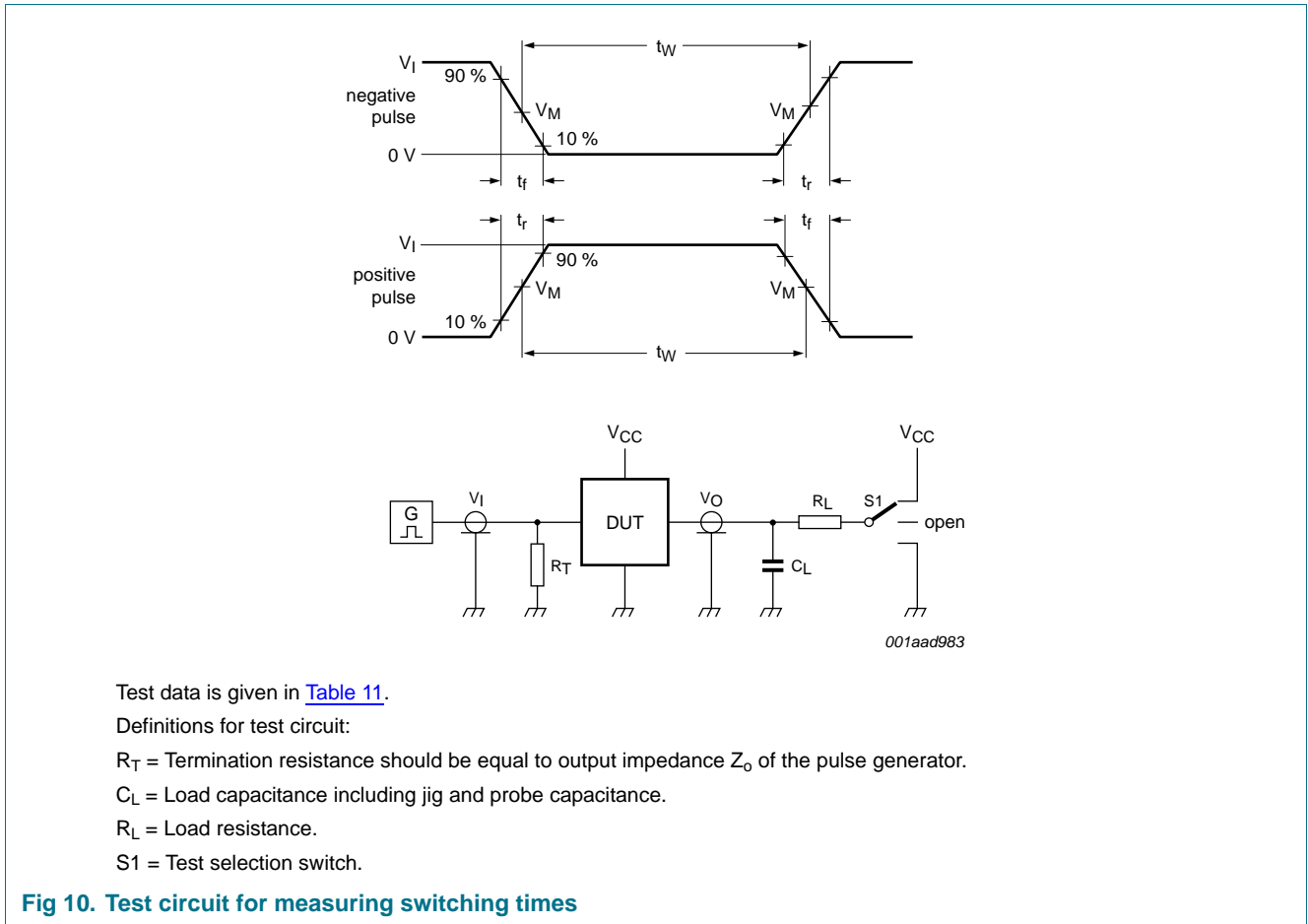
Measurement points are given in [Table 10](#).

Logic levels:  $V_{OL}$  and  $V_{OH}$  are typical output voltage levels that occur with the output load.

Fig 9. Enable and disable times

Table 10. Measurement points

Type	Input	Output		
	$V_M$	$V_M$	$V_X$	$V_Y$
74HC1G66-Q100	$0.5V_{CC}$	$0.5V_{CC}$	$V_{OL} + 10\%$	$V_{OH} - 10\%$
74HCT1G66-Q100	1.3 V	1.3 V	$V_{OL} + 10\%$	$V_{OH} - 10\%$



**Table 11. Test data**

Type	Input		Load		S1 position		
	$V_I$	$t_r, t_f$ <sup>[1]</sup>	$C_L$	$R_L$	$t_{PHL}, t_{PLH}$	$t_{PZH}, t_{PHZ}$	$t_{PZL}, t_{PLZ}$
74HC1G66-Q100	GND to $V_{CC}$	6 ns	50 pF, 15 pF	1 k $\Omega$ , $\infty \Omega$	open	GND	$V_{CC}$
74HCT1G66-Q100	GND to 3 V	6 ns	50 pF, 15 pF	1 k $\Omega$ , $\infty \Omega$	open	GND	$V_{CC}$

[1] There is no constraint on  $t_r, t_f$  with a 50% duty factor when measuring  $f_{max}$ .

## 11.2 Additional dynamic characteristics

**Table 12. Additional dynamic characteristics for 74HC1G66-Q100 and 74HCT1G66-Q100**

$GND = 0 V$ ;  $t_r = t_f = 6.0 ns$ ;  $C_L = 50 pF$ ; unless otherwise specified. All typical values are measured at  $T_{amb} = 25 \text{ }^\circ\text{C}$ .

Symbol	Parameter	Conditions	Min	Typ	Max	Unit	
THD	total harmonic distortion	$f_i = 1 \text{ kHz}$ ; $R_L = 10 \text{ k}\Omega$ ; see <a href="#">Figure 11</a>				%	
		$V_{CC} = 4.5 \text{ V}$ ; $V_I = 4.0 \text{ V (p-p)}$	-	0.04	-	%	
		$V_{CC} = 9.0 \text{ V}$ ; $V_I = 8.0 \text{ V (p-p)}$	-	0.02	-	%	
		$f_i = 10 \text{ kHz}$ ; $R_L = 10 \text{ k}\Omega$ ; see <a href="#">Figure 11</a>					
		$V_{CC} = 4.5 \text{ V}$ ; $V_I = 4.0 \text{ V (p-p)}$	-	0.12	-	%	
		$V_{CC} = 9.0 \text{ V}$ ; $V_I = 8.0 \text{ V (p-p)}$	-	0.06	-	%	

**Table 12. Additional dynamic characteristics for 74HC1G66-Q100 and 74HCT1G66-Q100 ...continued**  
*GND = 0 V;  $t_r = t_f = 6.0$  ns;  $C_L = 50$  pF; unless otherwise specified. All typical values are measured at  $T_{amb} = 25$  °C.*

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$f_{(-3dB)}$	-3 dB frequency response	$R_L = 50 \Omega$ ; $C_L = 10$ pF; see <a href="#">Figure 12</a> and <a href="#">13</a>				
		$V_{CC} = 4.5$ V	-	180	-	MHz
		$V_{CC} = 9.0$ V	-	200	-	MHz
$\alpha_{iso}$	isolation (OFF-state)	$R_L = 600 \Omega$ ; $f_i = 1$ MHz; see <a href="#">Figure 14</a> and <a href="#">15</a>				
		$V_{CC} = 4.5$ V	-	-50	-	dB
		$V_{CC} = 9.0$ V	-	-50	-	dB

11.3 Test circuits and graphs

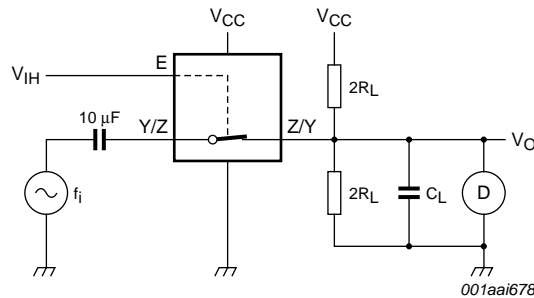
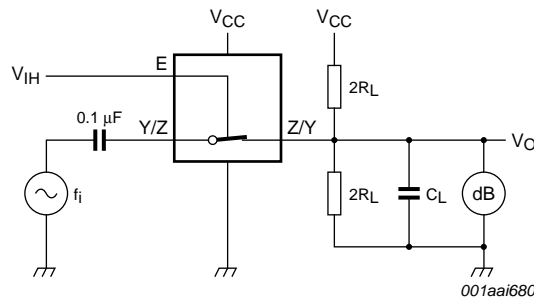
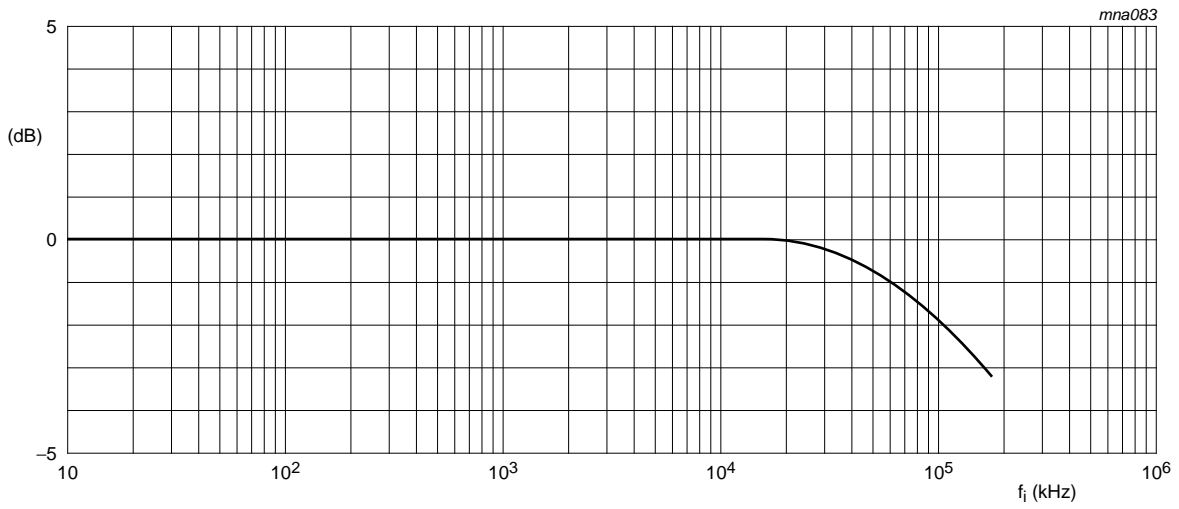


Fig 11. Test circuit for measuring total harmonic distortion



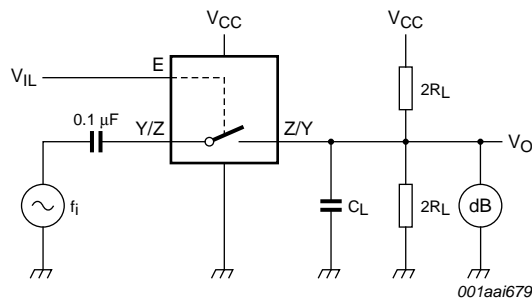
With  $f_i = 1$  MHz, adjust the switch input voltage for a 0 dBm level at the switch output (0 dBm = 1 mW into 50  $\Omega$ ). Then increase the input frequency until the dB meter reads -3 dB

Fig 12. Test circuit for measuring the -3 dB frequency response



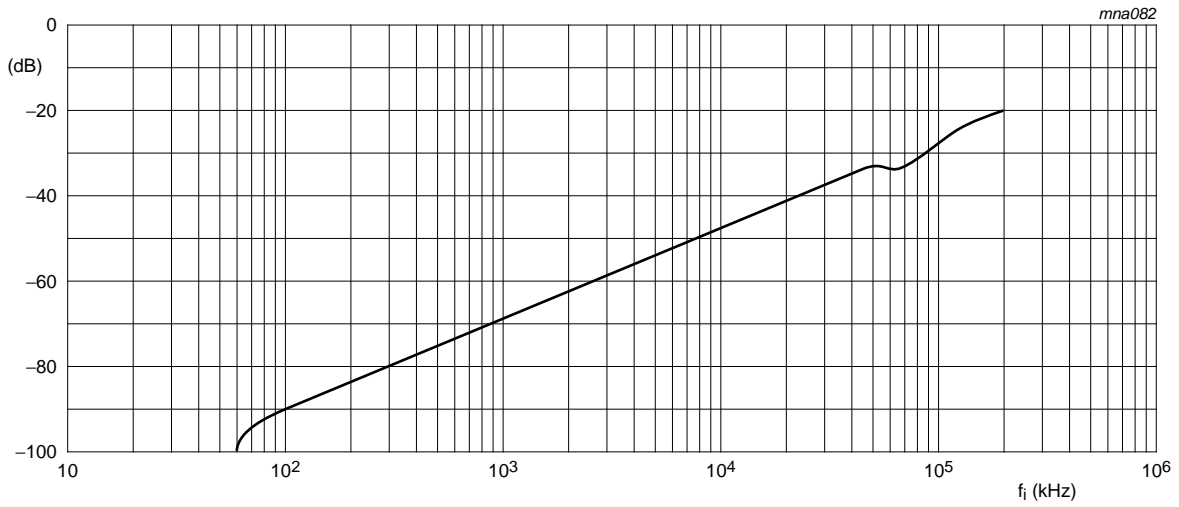
Test conditions:  $V_{CC} = 4.5\text{ V}$ ;  $GND = 0\text{ V}$ ;  $R_L = 50\ \Omega$ ;  $R_{SOURCE} = 1\text{ k}\Omega$ .

**Fig 13. Typical -3 dB frequency response**



Adjust the switch input voltage for a 0 dBm level (0 dBm = 1 mW into 600  $\Omega$ )

**Fig 14. Test circuit for measuring isolation (OFF-state)**



Test conditions:  $V_{CC} = 4.5\text{ V}$ ;  $GND = 0\text{ V}$ ;  $R_L = 50\ \Omega$ ;  $R_{SOURCE} = 1\text{ k}\Omega$ .

Fig 15. Typical isolation (OFF-state) as a function of frequency

12. Package outline

TSSOP5: plastic thin shrink small outline package; 5 leads; body width 1.25 mm

SOT353-1

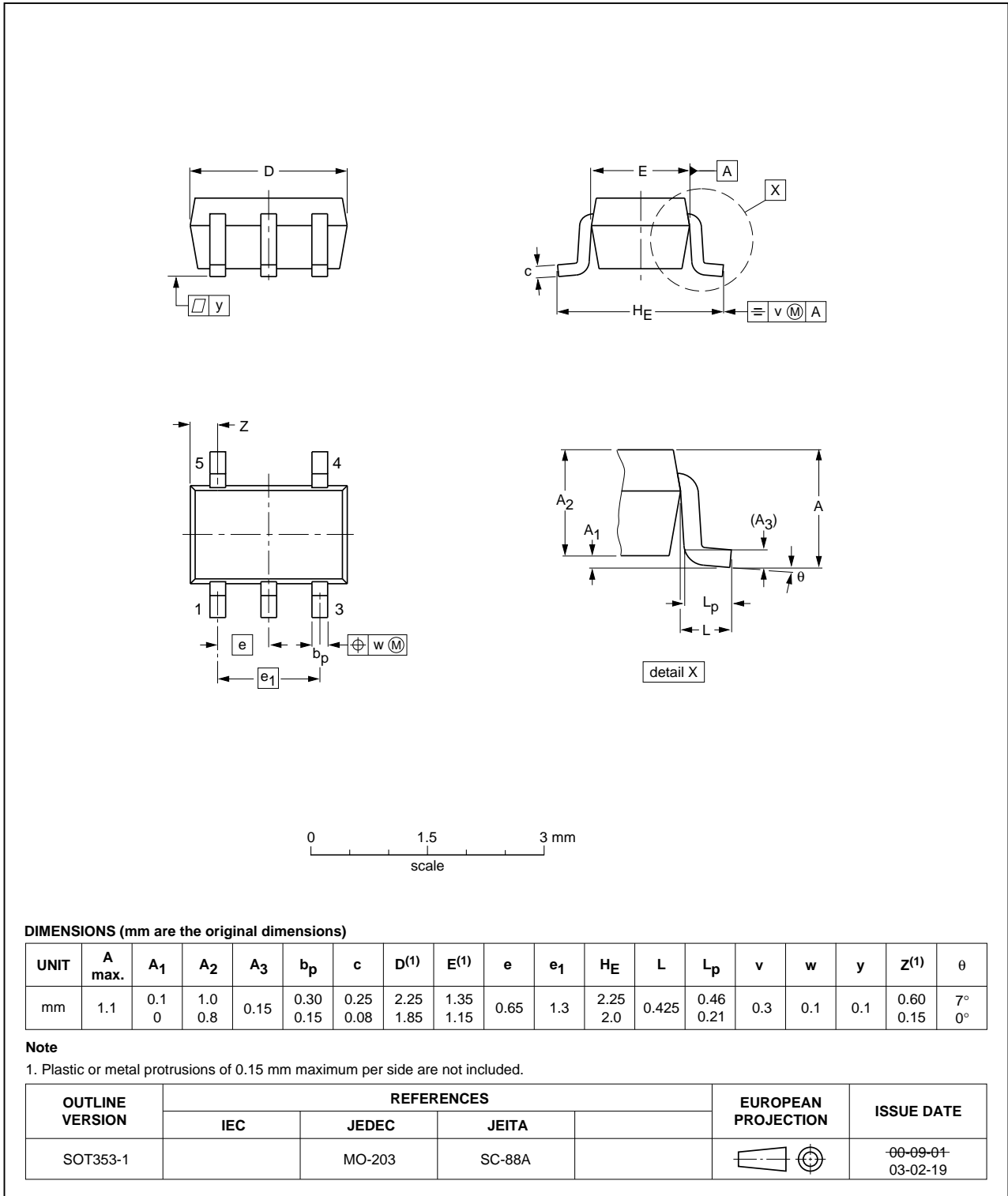


Fig 16. Package outline SOT353-1 (TSSOP5)

Plastic surface-mounted package; 5 leads

SOT753

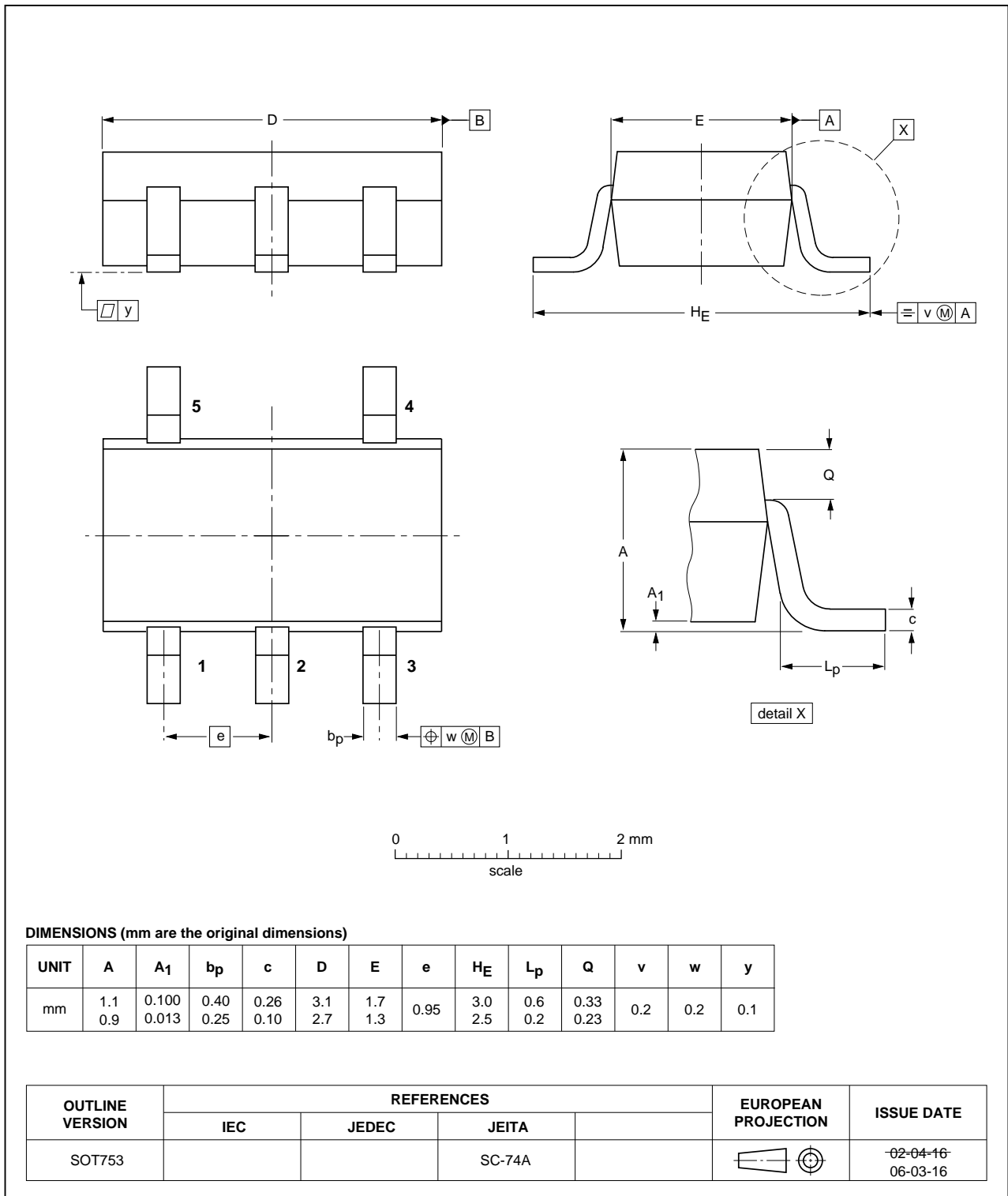


Fig 17. Package outline SOT753 (SC-74A)

## 13. Abbreviations

Table 13. Abbreviations

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

## 14. Revision history

Table 14. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes
74HC_HCT1G66_Q100 v.1	20130916	Product data sheet	-	-



## 15. Legal information

### 15.1 Data sheet status

Document status <sup>[1][2]</sup>	Product status <sup>[3]</sup>	Definition
Objective [short] data sheet	Development	This document contains data from the objective specification for product development.
Preliminary [short] data sheet	Qualification	This document contains data from the preliminary specification.
Product [short] data sheet	Production	This document contains the product specification.

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

[2] The term 'short data sheet' is explained in section "Definitions".

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