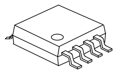
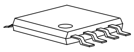
TRIPLE BUFFER GATE



MSOP-8



TSSOP-8

DESCRIPTION

The U74HCT3G34 provides three buffers, it is compatible with TTL.

FEATURES

* Low power dissipation
* High speed
* High noise immunity

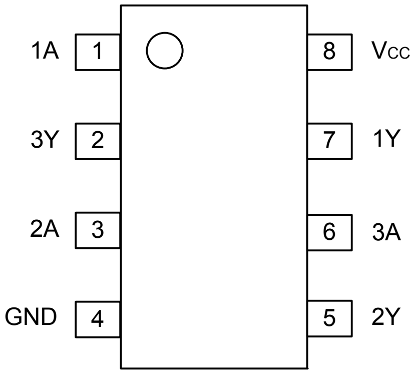
ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
U74HCT3G34L-P08-R	U74HCT3G34G-P08-R	TSSOP-8	Tape Reel
U74HCT3G34L-SM1-R	U74HCT3G34G-SM1-R	MSOP-8	Tape Reel

U74HCT3G34L-P08-R
(1)Packing Type
(2)Package Type
(3)Lead Free

(1) R: Tape Reel
(2) P08: TSSOP-8, SM1: MSOP-8
(3) G:Halogen Free, L: Lead Free

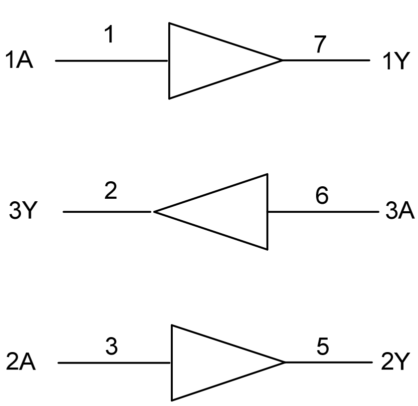
■ PIN CONFIGURATION

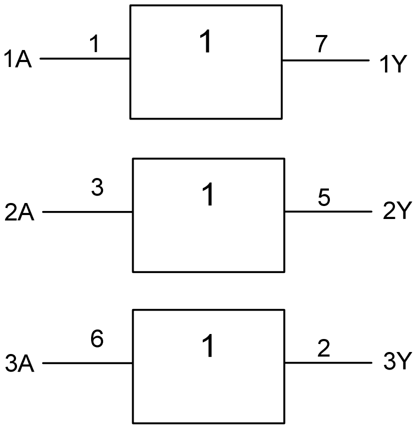


■ FUNCTION TABLE (each gate)

INPUT	OUTPUT
A	Y
L	L
H	H

■ LOGIC DIAGRAM (positive logic)





■ ABSOLUTE MAXIMUM RATINGS (unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V_{CC}	-0.5~7	V
Output Voltage	V_{OUT}	-0.5~V_{CC}+0.5	V
Output Current	I_{OUT}	25	mA
V_{CC} or GND Current	I_{CC}	50	mA
Input Clamp Current	I_{IK}	±20	mA
Output Clamp Current	I_{OK}	±20	mA
Power Dissipation	P_D	300	mW
Storage Temperature	T_{STG}	-65 ~ +150	℃

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ RECOMMENDED OPERATING CONDITIONS

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	V_{CC}		4.5	5.0	5.5	V
Input Voltage	V_{IN}		0		V_{CC}	V
Output Voltage	V_{OUT}		0		V_{CC}	V
Input Rise and Fall Times	t_R, t_F	V_{CC}=4.5V		6.0	500	ns
Operating Temperature	T_A		-40		+125	℃

■ STATIC CHARACTERISTICS (T_A=25℃)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
High-Level Input Voltage	V_{IH}	V_{CC}=4.5V~5.5V	2.0	1.6		V
Low-Level Input Voltage	V_{IL}	V_{CC}=4.5V~5.5V		1.2	0.8	V
High-Level Output Voltage	V_{OH}	V_{CC}=4.5V, I_{OH}=-20μA	4.4	4.5		V
		V_{CC}=4.5V, I_{OH}=-4.0mA	4.13	4.32		V
Low-Level Output Voltage	V_{OL}	V_{CC}=4.5V, I_{OL}=20μA		0	0.1	V
		V_{CC}=4.5V, I_{OL} =4.0mA		0.15	0.33	V
Input Leakage Current	$I_{I(LEAK)}$	V_{CC}=5.5V, V_{IN}=V_{CC} or GND			±1.0	μA
Quiescent Supply Current	I_Q	V_{CC}=5.5V, I_{OUT}=0, V_{IN}=V_{CC} or GND			10	μA
Additional Quiescent Supply Current	ΔI_Q	V_{CC}=5.5V, V_{IN}=V_{CC} -2.1V; I_{OUT}=0			375	μA
Input Capacitance	C_{IN}			1.5		pF

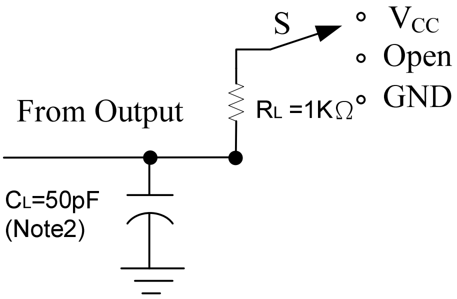
■ DYNAMIC CHARACTERISTICS (T_A=25℃, t_R, t_F≤6.0ns)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Propagation Delay From nA to nY	t_{PHL} /t_{PLH}	V_{CC}=4.5V, C_L=50 pF		10	23	ns
Output Transition Time	t_{THL} /t_{TLH}	V_{CC}=4.5V, C_L=50 pF		6	19	ns

■ OPERATING CHARACTERISTICS

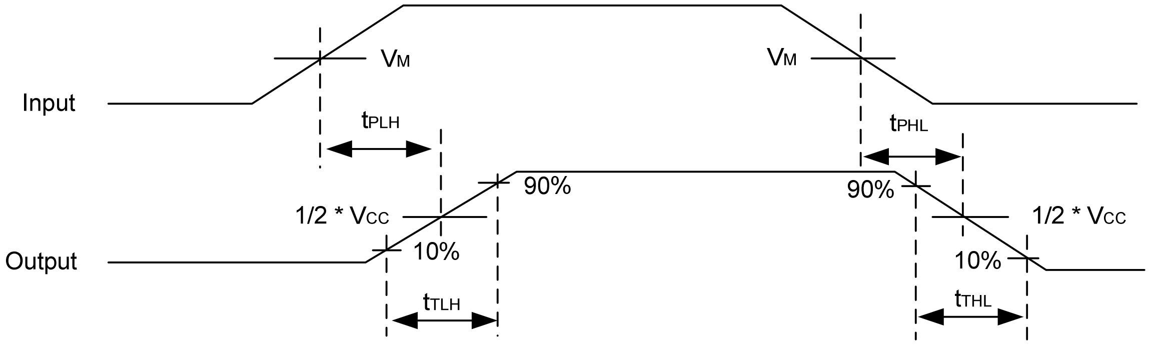
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Power Dissipation Capacitance per Gate	Cpd			9		pF

■ T TEST CIRCUIT AND WAVEFORMS



TEST	S
t_{PLH}/t_{PHL}	Open
t_{PHZ}/t_{PZH}	GND
t_{PLZ}/t_{PZL}	V_{CC}

Note: C_L includes probe and jig capacitance.



V_M=1.3V,Input=GND to3.0V