



# THE DATASHEET OF NLV74HC86ADTR2G



# Quad 2-Input Exclusive OR Gate

High-Performance Silicon-Gate CMOS

## MC74HC86A, MC74HCT86A

The MC74HC86A/MC74HCT86A is identical in pinout to the LS86. The MC74HC86A device inputs are compatible with standard CMOS outputs; with pullup resistors, they are compatible with LSTTL outputs. The MC74HCT86A inputs are compatible with Standard CMOS or TTL outputs.

### Features

- Output Drive Capability: 10 LSTTL Loads
- Outputs Directly Interface to CMOS, NMOS, and TTL
- Operating Voltage Range: 2.0 to 6.0 V (HC), 4.5 to 5.5 V (HCT)
- Low Input Current: 1 μA
- High Noise Immunity Characteristic of CMOS Devices
- In Compliance with JEDEC Standard No. 7 A Requirements
- Chip Complexity: 56 FETs or 14 Equivalent Gates
- -Q Suffix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable
- These Devices are Pb-Free, Halogen Free and are RoHS Compliant

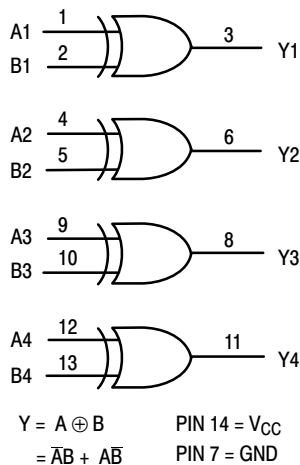


Figure 1. Logic Diagram

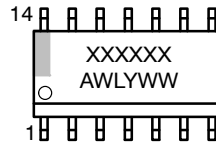


SOIC-14 NB  
D SUFFIX  
CASE 751A

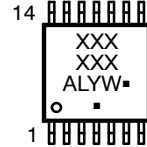


TSSOP-14  
DT SUFFIX  
CASE 948G

### MARKING DIAGRAMS



SOIC-14 NB



TSSOP-14

- XXX = Specific Device Code
- A = Assembly Location
- L, WL = Wafer Lot
- Y, YY = Year
- W, WW = Work Week
- G or ■ = Pb-Free Package

(Note: Microdot may be in either location)

### FUNCTION TABLE

Inputs		Output
A	B	Y
L	L	L
L	H	H
H	L	H
H	H	L

### ORDERING INFORMATION

See detailed ordering and shipping information on page 7 of this data sheet.

# MC74HC86A, MC74HCT86A

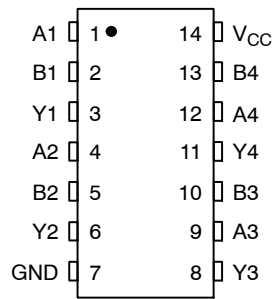


Figure 2. Pinout

## MAXIMUM RATINGS

Symbol	Parameter	Value	Unit	
$V_{CC}$	DC Supply Voltage	-0.5 to +6.5	V	
$V_I$	DC Input Voltage	-0.5 to $V_{CC} + 0.5$	V	
$V_O$	DC Output Voltage	-0.5 to $V_{CC} + 0.5$	V	
$I_{IN}$	DC Input Current, per Pin	$\pm 20$	mA	
$I_{OUT}$	DC Output Current, Per Pin	$\pm 25$	mA	
$I_{CC}$	DC Supply Current, $V_{CC}$ and GND Pins	$\pm 50$	mA	
$I_{IK}$	Input Clamp Current ( $V_{IN} < 0$ or $V_{IN} > V_{CC}$ )	$\pm 20$	mA	
$I_{OK}$	Output Clamp Current ( $V_{OUT} < 0$ or $V_{OUT} > V_{CC}$ )	$\pm 20$	mA	
$T_{STG}$	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$	
$T_L$	Lead Temperature, 1 mm from Case for 10 secs	260	$^{\circ}\text{C}$	
$T_J$	Junction Temperature Under Bias	+150	$^{\circ}\text{C}$	
$\theta_{JA}$	Thermal Resistance (Note 1)	SOIC-14 QFN14 TSSOP-14	116 130 150	$^{\circ}\text{C}/\text{W}$
$P_D$	Power Dissipation in Still Air at 25 $^{\circ}\text{C}$	SOIC-14 QFN14 TSSOP-20	1077 962 833	mW
MSL	Moisture Sensitivity		Level 1	-
$F_R$	Flammability Rating	Oxygen Index: 28 to 34	UL 94 V-0 @ 0.125 in	-
$V_{ESD}$	ESD Withstand Voltage (Note 2)	Human Body Model Charged Device Model	> 2000 N/A	V

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. Measured with minimum pad spacing on an FR4 board, using 76 mm-by-114 mm, 2-ounce copper trace no air flow per JESD51-7.
2. HBM tested to EIA / JESD22-A114-A. CDM tested to JESD22-C101-A. JEDEC recommends that ESD qualification to EIA/JESD22-A115A (Machine Model) be discontinued.

# MC74HC86A, MC74HCT86A

## RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
<b>MC74HC</b>				
$V_{CC}$	DC Supply Voltage (Referenced to GND)	2.0	6.0	V
$V_{IN}$ , $V_{OUT}$	DC Input, Output Voltage (Referenced to GND) (Note 3)	0	$V_{CC}$	V
$T_A$	Operating Free-Air Temperature	-55	+125	°C
$t_r$ , $t_f$	Input Rise or Fall Rate	$V_{CC} = 2.0\text{ V}$ $V_{CC} = 4.5\text{ V}$ $V_{CC} = 6.0\text{ V}$	1000 500 400	ns

## MC74HCT

$V_{CC}$	DC Supply Voltage (Referenced to GND)	4.5	5.5	V
$V_{IN}$ , $V_{OUT}$	DC Input, Output Voltage (Referenced to GND) (Note 3)	0	$V_{CC}$	V
$T_A$	Operating Free-Air Temperature	-55	+125	°C
$t_r$ , $t_f$	Input Rise or Fall Rate	0	500	ns

Functional operation above the stresses listed in the Recommended Operating Ranges is not implied. Extended exposure to stresses beyond the Recommended Operating Ranges limits may affect device reliability.

3. Unused inputs must always be tied to an appropriate logic voltage level (e.g., either GND or  $V_{CC}$ ). Unused outputs must be left open.

## DC ELECTRICAL CHARACTERISTICS (MC74HC86A)

Symbol	Parameter	Test Conditions	$V_{CC}$ V	Guaranteed Limit			Unit	
				-55 to 25°C	≤ 85°C	≤ 125°C		
$V_{IH}$	Minimum High-Level Input Voltage	$V_{out} = 0.1\text{ V or } V_{CC} - 0.1\text{ V}$ $ I_{out}  \leq 20\ \mu\text{A}$	2.0	1.5	1.5	1.5	V	
			3.0	2.1	2.1	2.1		
			4.5	3.15	3.15	3.15		
			6.0	4.2	4.2	4.2		
$V_{IL}$	Maximum Low-Level Input Voltage	$V_{out} = 0.1\text{ V or } V_{CC} - 0.1\text{ V}$ $ I_{out}  \leq 20\ \mu\text{A}$	2.0	0.5	0.5	0.5	V	
			3.0	0.9	0.9	0.9		
			4.5	1.35	1.35	1.35		
			6.0	1.8	1.8	1.8		
$V_{OH}$	Minimum High-Level Output Voltage	$V_{in} = V_{IH}\text{ or } V_{IL}$ $ I_{out}  \leq 20\ \mu\text{A}$	2.0	1.9	1.9	1.9	V	
			4.5	4.4	4.4	4.4		
			6.0	5.9	5.9	5.9		
		$V_{in} = V_{IH}\text{ or } V_{IL}$	$ I_{out}  \leq 2.4\text{ mA}$	3.0	2.48	2.34		2.20
			$ I_{out}  \leq 4.0\text{ mA}$	4.5	3.98	3.84		3.70
$ I_{out}  \leq 5.2\text{ mA}$	6.0	5.48	5.34	5.20				
	$V_{OL}$	Maximum Low-Level Output Voltage	$V_{in} = V_{IH}\text{ or } V_{IL}$ $ I_{out}  \leq 20\ \mu\text{A}$	2.0	0.1	0.1	0.1	V
4.5				0.1	0.1	0.1		
6.0				0.1	0.1	0.1		
$V_{in} = V_{IH}\text{ or } V_{IL}$				$ I_{out}  \leq 2.4\text{ mA}$	3.0	0.26	0.33	
	$ I_{out}  \leq 4.0\text{ mA}$	4.5	0.26	0.33	0.40			
	$ I_{out}  \leq 5.2\text{ mA}$	6.0	0.26	0.33	0.40			
$I_{in}$	Maximum Input Leakage Current	$V_{in} = V_{CC}\text{ or GND}$	6.0	±0.1	±1.0	±1.0	μA	
$I_{CC}$	Maximum Quiescent Supply Current (per Package)	$V_{in} = V_{CC}\text{ or GND}$ $I_{out} = 0\ \mu\text{A}$	6.0	1.0	10	40	μA	

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

# MC74HC86A, MC74HCT86A

## AC ELECTRICAL CHARACTERISTICS (MC74HC86A)

Symbol	Parameter	V <sub>CC</sub> V	Guaranteed Limit			Unit
			-55 to 25°C	≤ 85°C	≤ 125°C	
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, (A or B) to Y (Figures 3 and 4)	2.0	100	125	150	ns
		3.0	80	90	110	
		4.5	20	25	31	
		6.0	17	21	26	
t <sub>TLH</sub> , t <sub>THL</sub>	Maximum Output Transition Time, Any Output (Figures 3 and 4)	2.0	75	95	110	ns
		3.0	30	40	55	
		4.5	15	19	22	
		6.0	13	16	19	

C <sub>in</sub>	Maximum Input Capacitance	-	10	10	10	pF
C <sub>PD</sub>	Power Dissipation Capacitance (Per Gate)*	Typical @ 25°C, V <sub>CC</sub> = 5.0 V			pF	
		33				

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

\*Used to determine the no-load dynamic power consumption:  $P_D = C_{PD} V_{CC}^2 f + I_{CC} V_{CC}$ .

# MC74HC86A, MC74HCT86A

## DC ELECTRICAL CHARACTERISTICS (MC74HCT86A)

Symbol	Parameter	Test Conditions	V <sub>CC</sub> V	Guaranteed Limit			Unit
				- 55 to 25°C	≤ 85°C	≤ 125°C	
V <sub>IH</sub>	Minimum High-Level Input Voltage	V <sub>out</sub> = 0.1 V or V <sub>CC</sub> - 0.1 V  I <sub>out</sub>   ≤ 20 μA	4.5 to 5.5	2.0	2.0	2.0	V
V <sub>IL</sub>	Maximum Low-Level Input Voltage	V <sub>out</sub> = 0.1 V or V <sub>CC</sub> - 0.1 V  I <sub>out</sub>   ≤ 20 μA	4.5 to 5.5	0.8	0.8	0.8	V
V <sub>OH</sub>	Minimum High-Level Output Voltage	V <sub>in</sub> = V <sub>IH</sub> or V <sub>IL</sub>  I <sub>out</sub>   ≤ 20 μA	4.5 5.5	4.4 5.4	4.4 5.4	4.4 5.4	V
		V <sub>in</sub> = V <sub>IH</sub> or V <sub>IL</sub>  I <sub>out</sub>   ≤ 4.0 mA	4.5	3.98	3.84	3.70	
V <sub>OL</sub>	Maximum Low-Level Output Voltage	V <sub>in</sub> = V <sub>IH</sub> or V <sub>IL</sub>  I <sub>out</sub>   ≤ 20 μA	4.5 5.5	0.1 0.1	0.1 0.1	0.1 0.1	V
		V <sub>in</sub> = V <sub>IH</sub> or V <sub>IL</sub>  I <sub>out</sub>   ≤ 4.0 mA	4.5	0.26	0.33	0.40	
I <sub>in</sub>	Maximum Input Leakage Current	V <sub>in</sub> = V <sub>CC</sub> or GND	5.5	±0.1	±1.0	±1.0	μA
I <sub>CC</sub>	Maximum Quiescent Supply Current (per Package)	V <sub>in</sub> = V <sub>CC</sub> or GND I <sub>out</sub> = 0 μA	5.5	1.0	10	40	μA

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

## AC ELECTRICAL CHARACTERISTICS (MC74HCT86A)

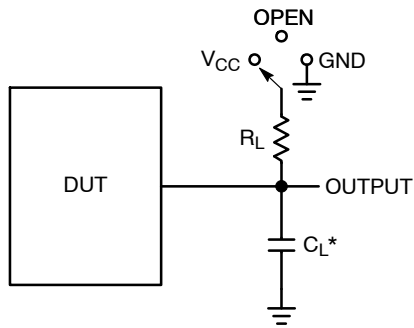
Symbol	Parameter	V <sub>CC</sub> V	Guaranteed Limit			Unit	
			- 55 to 25°C	≤ 85°C	≤ 125°C		
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, (A or B) to Y (Figures 3 and 4)	t <sub>PLH</sub> t <sub>PHL</sub>	5.0 5.0	20 17	25 21	31 26	ns
t <sub>TLH</sub> , t <sub>THL</sub>	Maximum Output Transition Time, Any Output (Figures 3 and 4)		5.0	15	19	22	ns
C <sub>in</sub>	Maximum Input Capacitance		—	10	10	10	pF

C <sub>PD</sub>	Power Dissipation Capacitance (Per Gate)*	Typical @ 25°C, V <sub>CC</sub> = 5.0 V			pF
		33			

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

\*Used to determine the no-load dynamic power consumption:  $P_D = C_{PD} V_{CC}^2 f + I_{CC} V_{CC}$ .

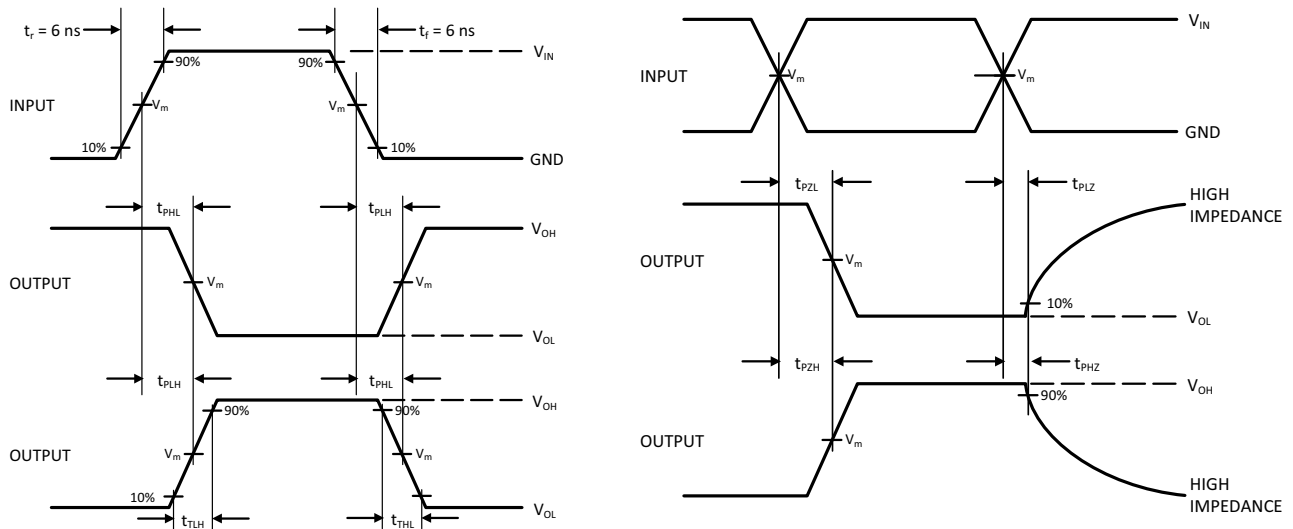
# MC74HC86A, MC74HCT86A



\*C<sub>L</sub> Includes probe and jig capacitance

Test	Switch Position	C <sub>L</sub>	R <sub>L</sub>
t <sub>PLH</sub> / t <sub>PHL</sub>	Open	50 pF	1 kΩ
t <sub>PLZ</sub> / t <sub>PZL</sub>	V <sub>CC</sub>		
t <sub>PHZ</sub> / t <sub>PZH</sub>	GND		

Figure 3. Test Circuit



Device	V <sub>IN</sub> , V	V <sub>m</sub> , V
MC74HC86A	V <sub>CC</sub>	50% x V <sub>CC</sub>
MC74HCT86A	3 V	1.5 V

Figure 4. Switching Waveforms

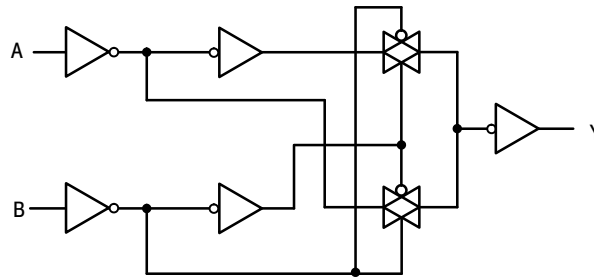


Figure 5. Expanded Logic Diagram  
(1/4 of Device)

## MC74HC86A, MC74HCT86A

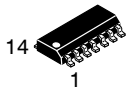
### ORDERING INFORMATION

Device	Package	Marking	Shipping <sup>†</sup>
MC74HC86ADG	SOIC-14	HC86A	55 Units / Rail
MC74HC86ADG-Q*	SOIC-14	HC86A	55 Units / Rail
MC74HC86ADR2G	SOIC-14	HC86A	2500 / Tape & Reel
MC74HC86ADR2G-Q*	SOIC-14	HC86A	2500 / Tape & Reel
MC74HC86ADTR2G	TSSOP-14	HC 86A	2500 / Tape & Reel
MC74HC86ADTR2G-Q*	TSSOP-14	HC 86A	2500 / Tape & Reel
MC74HCT86ADR2G	SOIC-14	HCT86A	2500 / Tape & Reel
MC74HCT86ADTR2G	TSSOP-14	HCT 86A	2500 / Tape & Reel

<sup>†</sup>For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

\*-Q Suffix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable.

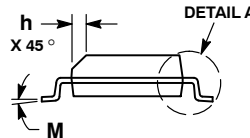
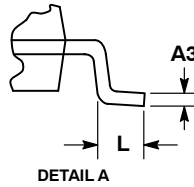
# MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS



SCALE 1:1

SOIC-14 NB  
CASE 751A-03  
ISSUE L

DATE 03 FEB 2016



NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE PROTRUSION SHALL BE 0.13 TOTAL IN EXCESS OF AT MAXIMUM MATERIAL CONDITION.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD PROTRUSIONS.
5. MAXIMUM MOLD PROTRUSION 0.15 PER SIDE.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.35	1.75	0.054	0.068
A1	0.10	0.25	0.004	0.010
A3	0.19	0.25	0.008	0.010
b	0.35	0.49	0.014	0.019
D	8.55	8.75	0.337	0.344
E	3.80	4.00	0.150	0.157
e	1.27 BSC		0.050 BSC	
H	5.80	6.20	0.228	0.244
h	0.25	0.50	0.010	0.019
L	0.40	1.25	0.016	0.049
M	0°	7°	0°	7°

SOLDERING FOOTPRINT\*



DIMENSIONS: MILLIMETERS

\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

GENERIC MARKING DIAGRAM\*



- XXXXXX = Specific Device Code
- A = Assembly Location
- WL = Wafer Lot
- Y = Year
- WW = Work Week
- G = Pb-Free Package

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

STYLES ON PAGE 2

DOCUMENT NUMBER:	98ASB42565B	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
DESCRIPTION:	SOIC-14 NB	PAGE 1 OF 2

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.

**SOIC-14**  
**CASE 751A-03**  
**ISSUE L**

DATE 03 FEB 2016

STYLE 1:  
 PIN 1. COMMON CATHODE  
 2. ANODE/CATHODE  
 3. ANODE/CATHODE  
 4. NO CONNECTION  
 5. ANODE/CATHODE  
 6. NO CONNECTION  
 7. ANODE/CATHODE  
 8. ANODE/CATHODE  
 9. ANODE/CATHODE  
 10. NO CONNECTION  
 11. ANODE/CATHODE  
 12. ANODE/CATHODE  
 13. NO CONNECTION  
 14. COMMON ANODE

STYLE 2:  
 CANCELLED

STYLE 3:  
 PIN 1. NO CONNECTION  
 2. ANODE  
 3. ANODE  
 4. NO CONNECTION  
 5. ANODE  
 6. NO CONNECTION  
 7. ANODE  
 8. ANODE  
 9. ANODE  
 10. NO CONNECTION  
 11. ANODE  
 12. ANODE  
 13. NO CONNECTION  
 14. COMMON CATHODE

STYLE 4:  
 PIN 1. NO CONNECTION  
 2. CATHODE  
 3. CATHODE  
 4. NO CONNECTION  
 5. CATHODE  
 6. NO CONNECTION  
 7. CATHODE  
 8. CATHODE  
 9. CATHODE  
 10. NO CONNECTION  
 11. CATHODE  
 12. CATHODE  
 13. NO CONNECTION  
 14. COMMON ANODE

STYLE 5:  
 PIN 1. COMMON CATHODE  
 2. ANODE/CATHODE  
 3. ANODE/CATHODE  
 4. ANODE/CATHODE  
 5. ANODE/CATHODE  
 6. NO CONNECTION  
 7. COMMON ANODE  
 8. COMMON CATHODE  
 9. ANODE/CATHODE  
 10. ANODE/CATHODE  
 11. ANODE/CATHODE  
 12. ANODE/CATHODE  
 13. NO CONNECTION  
 14. COMMON ANODE

STYLE 6:  
 PIN 1. CATHODE  
 2. CATHODE  
 3. CATHODE  
 4. CATHODE  
 5. CATHODE  
 6. CATHODE  
 7. CATHODE  
 8. ANODE  
 9. ANODE  
 10. ANODE  
 11. ANODE  
 12. ANODE  
 13. ANODE  
 14. ANODE

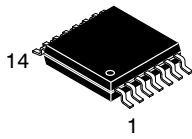
STYLE 7:  
 PIN 1. ANODE/CATHODE  
 2. COMMON ANODE  
 3. COMMON CATHODE  
 4. ANODE/CATHODE  
 5. ANODE/CATHODE  
 6. ANODE/CATHODE  
 7. ANODE/CATHODE  
 8. ANODE/CATHODE  
 9. ANODE/CATHODE  
 10. ANODE/CATHODE  
 11. COMMON CATHODE  
 12. COMMON ANODE  
 13. ANODE/CATHODE  
 14. ANODE/CATHODE

STYLE 8:  
 PIN 1. COMMON CATHODE  
 2. ANODE/CATHODE  
 3. ANODE/CATHODE  
 4. NO CONNECTION  
 5. ANODE/CATHODE  
 6. ANODE/CATHODE  
 7. COMMON ANODE  
 8. COMMON ANODE  
 9. ANODE/CATHODE  
 10. ANODE/CATHODE  
 11. NO CONNECTION  
 12. ANODE/CATHODE  
 13. ANODE/CATHODE  
 14. COMMON CATHODE

<b>DOCUMENT NUMBER:</b>	<b>98ASB42565B</b>	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
<b>DESCRIPTION:</b>	<b>SOIC-14 NB</b>	<b>PAGE 2 OF 2</b>

**onsemi** and **ONSEMI** are trademarks of Semiconductor Components Industries, LLC dba **onsemi** or its subsidiaries in the United States and/or other countries. **onsemi** reserves the right to make changes without further notice to any products herein. **onsemi** makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. **onsemi** does not convey any license under its patent rights nor the rights of others.

# MECHANICAL CASE OUTLINE PACKAGE DIMENSIONS



**TSSOP-14 WB**  
CASE 948G  
ISSUE C

DATE 17 FEB 2016

SCALE 2:1



**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DIMENSION A DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. MOLD FLASH OR GATE BURRS SHALL NOT EXCEED 0.15 (0.006) PER SIDE.
4. DIMENSION B DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSION. INTERLEAD FLASH OR PROTRUSION SHALL NOT EXCEED 0.25 (0.010) PER SIDE.
5. DIMENSION K DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08 (0.003) TOTAL IN EXCESS OF THE K DIMENSION AT MAXIMUM MATERIAL CONDITION.
6. TERMINAL NUMBERS ARE SHOWN FOR REFERENCE ONLY.
7. DIMENSION A AND B ARE TO BE DETERMINED AT DATUM PLANE -W-.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.90	5.10	0.193	0.200
B	4.30	4.50	0.169	0.177
C	---	1.20	---	0.047
D	0.05	0.15	0.002	0.006
F	0.50	0.75	0.020	0.030
G	0.65 BSC		0.026 BSC	
H	0.50	0.60	0.020	0.024
J	0.09	0.20	0.004	0.008
J1	0.09	0.16	0.004	0.006
K	0.19	0.30	0.007	0.012
K1	0.19	0.25	0.007	0.010
L	6.40 BSC		0.252 BSC	
M	0°	8°	0°	8°

**GENERIC MARKING DIAGRAM\***

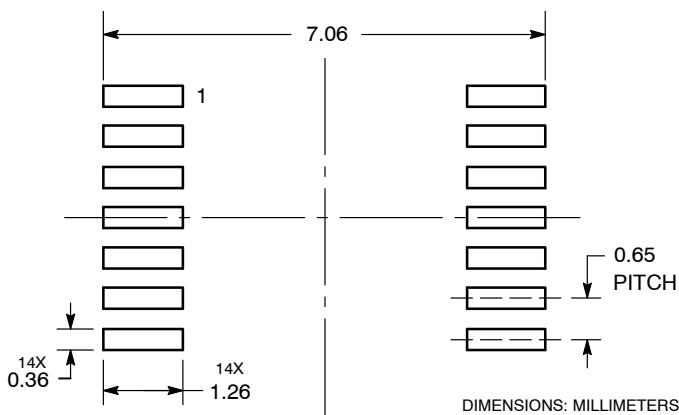


- A = Assembly Location
- L = Wafer Lot
- Y = Year
- W = Work Week
- = Pb-Free Package

(Note: Microdot may be in either location)

\*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

**SOLDERING FOOTPRINT**



<b>DOCUMENT NUMBER:</b>	<b>98ASH70246A</b>	Electronic versions are uncontrolled except when accessed directly from the Document Repository. Printed versions are uncontrolled except when stamped "CONTROLLED COPY" in red.
<b>DESCRIPTION:</b>	<b>TSSOP-14 WB</b>	<b>PAGE 1 OF 1</b>

onsemi and onsemi are trademarks of Semiconductor Components Industries, LLC dba onsemi or its subsidiaries in the United States and/or other countries. onsemi reserves the right to make changes without further notice to any products herein. onsemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does onsemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. onsemi does not convey any license under its patent rights nor the rights of others.

**onsemi**, **Onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at [www.onsemi.com/site/pdf/Patent-Marking.pdf](http://www.onsemi.com/site/pdf/Patent-Marking.pdf). **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi** products, including compliance with all laws, regulations and safety requirements or standards, regardless of any support or applications information provided by **onsemi**. "Typical" parameters which may be provided in **onsemi** data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. **onsemi** does not convey any license under any of its intellectual property rights nor the rights of others. **onsemi** products are not designed, intended, or authorized for use as a critical component in life support systems or any FDA Class 3 medical devices or medical devices with a same or similar classification in a foreign jurisdiction or any devices intended for implantation in the human body. Should Buyer purchase or use **onsemi** products for any such unintended or unauthorized application, Buyer shall indemnify and hold **onsemi** and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that **onsemi** was negligent regarding the design or manufacture of the part. **onsemi** is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

## ADDITIONAL INFORMATION

### TECHNICAL PUBLICATIONS:

Technical Library: [www.onsemi.com/design/resources/technical-documentation](http://www.onsemi.com/design/resources/technical-documentation)  
onsemi Website: [www.onsemi.com](http://www.onsemi.com)

### ONLINE SUPPORT: [www.onsemi.com/support](http://www.onsemi.com/support)

For additional information, please contact your local Sales Representative at [www.onsemi.com/support/sales](http://www.onsemi.com/support/sales)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View NLV74HC86ADTR2G on WIN SOURCE](#)

 [ON Semiconductor](#) Information

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management