

# 8-Bit Addressable Latch 1-of-8 Decoder

# **High-Performance Silicon-Gate CMOS**

# MC74HC259A, MC74HCT259A

The MC74HC259A/MC74HCT259A is identical in pinout to the LS259. The device inputs are compatible with standard CMOS outputs; with pullup resistors, they are compatible with LSTTL outputs. The MC74HCT259A inputs are compatible with standard CMOS and LSTTL outputs.

The device has four modes of operation as shown in the mode selection table. In the addressable latch mode, the data on Data In is written into the addressed latch. The addressed latch follows the data input with all non-addressed latches remaining in their previous states. In the memory mode, all latches remain in their previous state and are unaffected by the Data or Address inputs. In the one-of-eight decoding or demultiplexing mode, the addressed output follows the state of Data In with all other outputs in the LOW state. In the Reset mode all outputs are LOW and unaffected by the address and data inputs. When operating the device as an addressable latch, changing more than one bit of the address could impose a transient wrong address. Therefore, this should only be done while in the memory mode.

#### **Features**

- Output Drive Capability: 10 LSTTL Loads
- Outputs Directly Interface to CMOS, NMOS, and TTL
- Operating Voltage Range: 2 to 6 V (HC), 4.5 to 5.5 V (HCT)
- Low Input Current: 1 μA
- High Noise Immunity Characteristic of CMOS Devices
- -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







TSSOP-16 **DT SUFFIX** CASE 948F



#### **MARKING DIAGRAMS**





XXXXXXX ALYW= QFN16

XXXXXXX = Specific Device Code

= Assembly Location

WL, L = Wafer Lot = Year WW, W = Work Week = Pb-Free Package G or ■

(Note: Microdot may be in either location)

#### PIN ASSIGNMENT

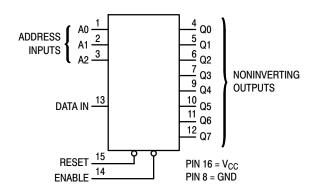
A0 [	1 ●	16	v <sub>cc</sub>
A1 [	2	15	RESET
A2 [	3	14	ENABLE
Q0 [	4	13	DATA IN
Q1 [	5	12	Q7
Q2 [	6	11	Q6
Q3 [	7	10	Q5
GND [	8	9	Q4

#### **MODE SELECTION TABLE**

Enable	Reset	Mode
L	Н	Addressable Latch
Н	Н	Memory
L	L	8-Line Demultiplexer
Н	L	Reset

#### ORDERING INFORMATION

See detailed ordering and shipping information in the package dimensions section on page 7 of this data sheet.



#### **LATCH SELECTION TABLE**

Ad	dress Inp	uts	
A <sub>2</sub>	A <sub>1</sub>	A <sub>0</sub>	Latch Addressed
L L L H H H	L	L H L H L H L	Q0 Q1 Q2 Q3 Q4 Q5 Q6
H H H	L	Ĺ	Q4 Q5

Figure 1. Logic Diagram

#### **MAXIMUM RATINGS**

Symbol	Parameter		Value	Unit
V <sub>CC</sub>	DC Supply Voltage		-0.5 to +6.5	V
V <sub>IN</sub>	DC Input Voltage		–0.5 to V <sub>CC</sub> +0.5	V
V <sub>OUT</sub>	DC Output Voltage		–0.5 to V <sub>CC</sub> +0.5	V
I <sub>IN</sub>	DC Input Diode Current, per Pin		±20	mA
l <sub>out</sub>	DC Input Diode Current, Per Pin		±25	mA
I <sub>CC</sub>	DC Supply Current, V <sub>CC</sub> and GND Pins		±50	mA
I <sub>IK</sub>	Input Clamp Current (V <sub>IN</sub> < 0 or V <sub>IN</sub> > V <sub>CC</sub> )		±20	mA
l <sub>OK</sub>	Output Clamp Current (V <sub>OUT</sub> < 0 or V <sub>OUT</sub> > V <sub>CC</sub> )		±20	mA
T <sub>STG</sub>	Storage Temperature Range		-65 to +150	°C
TL	Lead Temperature, 1 mm from Case for 10 secs		260	°C
TJ	Junction Temperature Under Bias		+150	°C
$\theta_{\sf JA}$	Thermal Resistance (Note 1)	SOIC-16 QFN16 TSSOP-16	126 118 159	°C/W
$P_{D}$	Power Dissipation in Still Air at 25°C	SOIC-16 QFN16 TSSOP-16	995 1062 787	mW
MSL	Moisture Sensitivity		Level 1	-
F <sub>R</sub>	Flammability Rating	Oxygen Index: 28 to 34	UL 94 V-0 @ 0.125 in	-
V <sub>ESD</sub>	ESD Withstand Voltage (Note 2)	Human Body Model Charged Device Model	2000 N/A	V
I <sub>LATCHUP</sub>	Latchup Performance (Note 3)		±100	mA

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.

3. Tested to EIA/JÉSD78 Class II.

Measured with minimum pad spacing on an FR4 board, using 76mm-by-114mm, 2-ounce copper trace no air flow per JESD51-7.
 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.

#### RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Min	Max	Unit
МС74НС		•		
V <sub>CC</sub>	DC Supply Voltage	2.0	6.0	V
V <sub>in</sub> , V <sub>out</sub>	DC Input, Output Voltage (Note 4)	0	V <sub>CC</sub>	V
T <sub>A</sub>	Operating Free-Air Temperature	<b>–</b> 55	+125	°C
t <sub>r</sub> , t <sub>f</sub>	Input Rise or Fall Time $V_{CC} = 2.0 \text{ V} \\ V_{CC} = 3.0 \text{ V} \\ V_{CC} = 4.5 \text{ V} \\ V_{CC} = 6.0 \text{ V}$	0	1000 600 500 400	ns
MC74HCT				
V <sub>CC</sub>	DC Supply Voltage	4.5	5.5	V
V <sub>in</sub> , V <sub>out</sub>	DC Input, Output Voltage (Note 4)	0	V <sub>CC</sub>	V
T <sub>A</sub>	Operating Free-Air Temperature	-55	+125	°C
t <sub>r</sub> , t <sub>f</sub>	Input Rise or Fall Time	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.

# DC ELECTRICAL CHARACTERISTICS (MC74HC259A)

				Gu	aranteed Li	mit	
Symbol	Parameter	Test Conditions	V <sub>CC</sub> V	– 55 to 25°C	≤ <b>85</b> °C	≤ 125°C	Unit
V <sub>IH</sub>	Minimum High-Level Input Voltage	$V_{out}$ = 0.1 V or $V_{CC}$ – 0.1 V $ I_{out}  \le 20 \mu A$	2.0 3.0 4.5 6.0	1.5 2.1 3.15 4.2	1.5 2.1 3.15 4.2	1.5 2.1 3.15 4.2	V
V <sub>IL</sub>	Maximum Low-Level Input Voltage	$V_{out}$ = 0.1 V or $V_{CC}$ – 0.1 V $ I_{out}  \le 20 \mu A$	2.0 3.0 4.5 6.0	0.5 0.9 1.35 1.80	0.5 0.9 1.35 1.80	0.5 0.9 1.35 1.80	V
V <sub>OH</sub>	Minimum High-Level Output Voltage	$V_{in} = V_{IH} \text{ or } V_{IL}$ $ I_{out}  \le 20  \mu\text{A}$	2.0 4.5 6.0	1.9 4.4 5.9	1.9 4.4 5.9	1.9 4.4 5.9	V
		$ \begin{vmatrix} V_{in} = V_{IH} \text{ or } V_{IL} &  I_{out}  \leq 2.4 \text{ mA} \\  I_{out}  \leq 4.0 \text{ mA} \\  I_{out}  \leq 5.2 \text{ mA} \end{vmatrix} $	3.0 4.5 6.0	2.48 3.98 5.48	2.34 3.84 5.34	2.20 3.70 5.20	
V <sub>OL</sub>	Maximum Low-Level Output Voltage	$V_{in} = V_{IH} \text{ or } V_{IL}$ $ I_{out}  \le 20  \mu\text{A}$	2.0 4.5 6.0	0.1 0.1 0.1	0.1 0.1 0.1	0.1 0.1 0.1	V
		$\label{eq:Vin} \begin{aligned} V_{in} = V_{IH} \text{ or } V_{IL} & &  I_{out}  \leq 2.4 \text{ mA} \\ & &  I_{out}  \leq 4.0 \text{ mA} \\ & &  I_{out}  \leq 5.2 \text{ mA} \end{aligned}$	3.0 4.5 6.0	0.26 0.26 0.26	0.33 0.33 0.33	0.40 0.40 0.40	
I <sub>in</sub>	Maximum Input Leakage Current	V <sub>in</sub> = V <sub>CC</sub> or GND	6.0	± 0.1	± 1.0	± 1.0	μΑ
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	6.0	4	40	160	μΑ

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.

<sup>4.</sup> Unused inputs must always be tied to an appropriate logic voltage level (e.g., either GND or V<sub>CC</sub>). Unused outputs must be left open.

# AC ELECTRICAL CHARACTERISTICS (MC74HC259A)

			Guaranteed Limit			
Symbol	Parameter	V <sub>CC</sub> V	– 55 to 25°C	≤ <b>85</b> °C	≤ 125°C	Unit
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, Data to Output (Figures 2, 3)	2.0 3.0 4.5 6.0	125 45 32 25	160 60 32 28	175 70 42 33	ns
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, Address Select to Output (Figures 2, 4)	2.0 3.0 4.5 6.0	150 60 32 28	175 70 40 30	200 80 45 35	ns
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, Enable to Output (Figures 2, 5)	2.0 3.0 4.5 6.0	150 60 32 28	175 70 40 30	200 80 45 35	ns
<sup>†</sup> PHL	Maximum Propagation Delay, Reset to Output (Figures 2, 6)	2.0 3.0 4.5 6.0	110 36 22 19	125 45 26 23	160 60 32 28	ns
t <sub>TLH</sub> , t <sub>THL</sub>	Maximum Output Transition Time, Any Output (Figures 2, 3)	2.0 3.0 4.5 6.0	75 27 15 13	95 32 19 16	110 36 22 19	ns
C <sub>in</sub>	Maximum Input Capacitance	-	10	10	10	pF

		Typical @ 25°C, V <sub>CC</sub> = 5.0 V	
$C_{PD}$	Power Dissipation Capacitance (Per Package)	30	pF

# TIMING REQUIREMENTS (MC74HC259A)

			Gu	aranteed Li	mit	
Symbol	Parameter	V <sub>CC</sub>	– 55 to 25°C	≤ <b>85</b> °C	≤ 125°C	Unit
t <sub>su</sub>	Minimum Setup Time, Address or Data to Enable (Figure 7)	2.0 3.0 4.5 6.0	75 30 15 13	95 40 19 16	110 55 22 19	ns
t <sub>h</sub>	Minimum Hold Time, Enable to Address or Data (Figure 7)	2.0 3.0 4.5 6.0	1 1 1	1 1 1	1 1 1	ns
t <sub>w</sub>	Minimum Pulse Width, Reset or Enable (Figure 5, 6)	2.0 3.0 4.5 6.0	70 27 15 13	90 32 19 16	100 36 22 19	ns
t <sub>r</sub> , t <sub>f</sub>	Maximum Input Rise and Fall Times (Figure 3)	2.0 3.0 4.5 6.0	1000 600 500 400	1000 600 500 400	1000 600 500 400	ns

# DC ELECTRICAL CHARACTERISTICS (MC74HCT259A)

				Gu	aranteed Li	mit	
Symbol	Parameter	Test Conditions	V <sub>CC</sub> V	– 55 to 25°C	≤ <b>85</b> °C	≤ 125°C	Unit
V <sub>IH</sub>	Minimum High-Level Input Voltage	$V_{out} = 0.1 \text{ V or } V_{CC} - 0.1 \text{ V}$ $ I_{out}  \le 20  \mu\text{A}$	4.5 5.5	2.0 2.0	2.0 2.0	2.0 2.0	V
V <sub>IL</sub>	Maximum Low-Level Input Voltage	$V_{out} = 0.1 \text{ V or } V_{CC} - 0.1 \text{ V}$ $ I_{out}  \le 20  \mu\text{A}$	4.5 5.5	0.8 0.8	0.8 0.8	0.8 0.8	V
V <sub>OH</sub>	Minimum High-Level Output Voltage	$V_{in} = V_{IH} \text{ or } V_{IL}$ $ I_{out}  \le 20 \ \mu A$	4.5 5.5	4.4 5.4	4.4 5.4	4.4 5.4	V
		$V_{in} = V_{IH} \text{ or } V_{IL} $ $ I_{out}  \le 5.2 \text{ mA}$	4.5	3.98	3.84	3.70	
V <sub>OL</sub>	Maximum Low-Level Output Voltage	$V_{in} = V_{IH} \text{ or } V_{IL}$ $ I_{out}  \le 20 \ \mu A$	4.5 5.5	0.1 0.1	0.1 0.1	0.1 0.1	V
		$V_{in} = V_{IH} \text{ or } V_{IL} $ $ I_{out}  \leq 5.2 \text{ 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	μΑ
I <sub>CC</sub>	Maximum Quiescent Supply Current (per Package)	$V_{in} = V_{CC}$ or GND $I_{out} = 0 \mu A$	5.5	4	40	160	μΑ
Δl <sub>CC</sub>	Additional Quiescent Supply	$V_{in} = 2.4V$ , Any One Input $V_{in} = V_{CC}$ or GND, Other Inputs		≥ <b>-55</b> °C	25 to 125°C		
	Garront	I <sub>out</sub> = 0μA	5.5	2.9	2	.4	mA

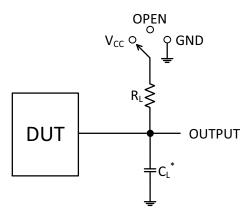
# AC ELECTRICAL CHARACTERISTICS (MC74HCT259A)

		Guaranteed Limit			
Symbol	Parameter	–55 to 25°C	≤ <b>85</b> °C	≤ 125°C	Unit
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, Data to Output (Figures 2, 3)	32	32	42	ns
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, Address Select to Output (Figures 2, 4)	32	40	45	ns
t <sub>PLH</sub> , t <sub>PHL</sub>	Maximum Propagation Delay, Enable to Output (Figures 2, 5)	32	40	45	ns
t <sub>PHL</sub>	Maximum Propagation Delay, Reset to Output (Figures 2, 6)	22	26	32	ns
t <sub>TLH</sub> , t <sub>THL</sub>	Maximum Output Transition Time, Any Output (Figures 2, 3)	15	19	22	ns
C <sub>in</sub>	Maximum Input Capacitance	10	10	10	pF

		Typical @ 25°C, V <sub>CC</sub> = 5.0 V	
$C_{PD}$	Power Dissipation Capacitance (Per Package)	30	pF

# TIMING REQUIREMENTS (MC74HCT259A)

		Guaranteed Limit			
Symbol	Parameter	–55 to 25°C	≤ <b>85</b> °C	≤ 125°C	Unit
t <sub>su</sub>	Minimum Setup Time, Address or Data to Enable (Figure 7)	15	19	22	ns
t <sub>h</sub>	Minimum Hold Time, Enable to Address or Data (Figure 7)	1	1	1	ns
t <sub>w</sub>	Minimum Pulse Width, Reset or Enable (Figure 5 or 6)	15	19	22	ns

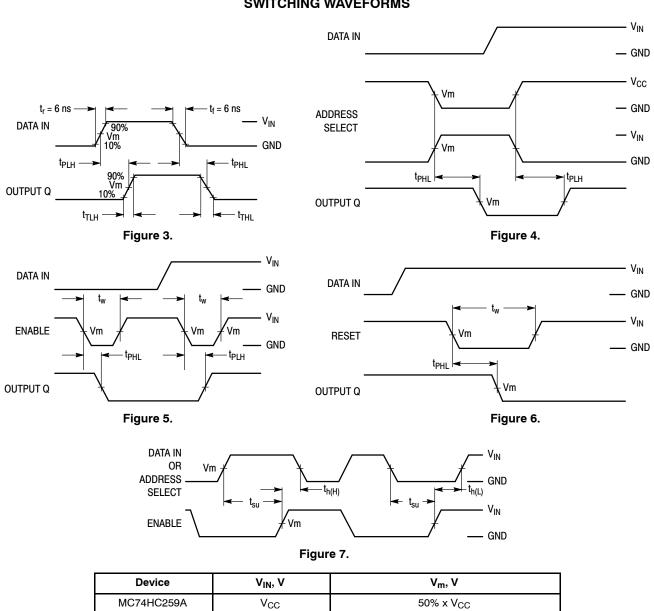


Test	Switch Position	C <sub>L</sub>	$R_{L}$
t <sub>PLH</sub> / t <sub>PHL</sub>	Open	50 pF	1 kΩ
t <sub>PLZ</sub> / t <sub>PZL</sub>	V <sub>CC</sub>		
t <sub>PHZ</sub> / t <sub>PZH</sub>	GND		

MC74HCT259A

Figure 2. Test Circuit

# **SWITCHING WAVEFORMS**



1.3 V

3 V

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

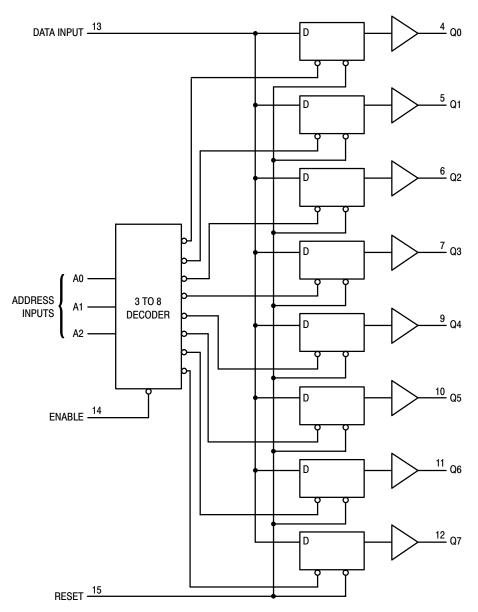


Figure 8. Expanded Logic Diagram

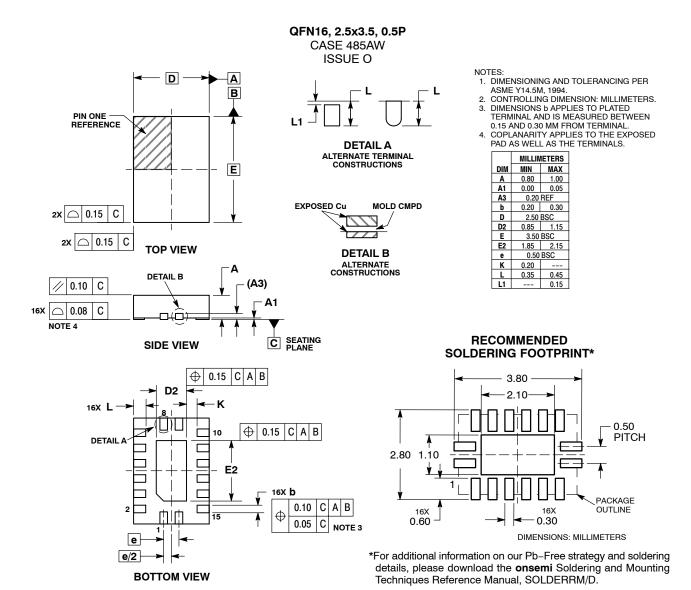
# **ORDERING INFORMATION**

Device	Marking	Package	Shipping <sup>†</sup>
MC74HC259ADR2G	HC259AG	SOIC-16	2500 Units / Tape & Reel
MC74HC259ADR2G-Q*	HC259AG	SOIC-16	2500 Units / Tape & Reel
MC74HC259ADTR2G	HC 259A	TSSOP-16	2500 Units / Tape & Reel
MC74HC259ADTR2G-Q*	HC 259A	TSSOP-16	2500 Units / Tape & Reel
MC74HCT259ADR2G	HCT259AG	SOIC-16	2500 Units / 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.

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

#### PACKAGE DIMENSIONS





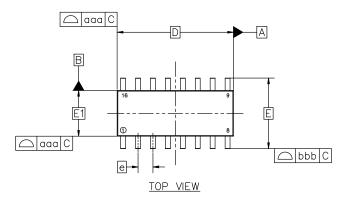


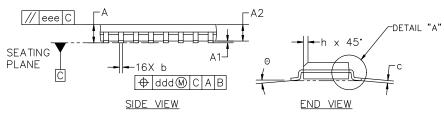
#### SOIC-16 9.90x3.90x1.50 1.27P CASE 751B ISSUE L

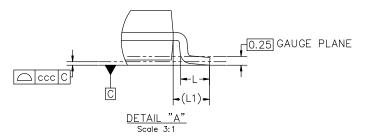
**DATE 29 MAY 2024** 

#### NOTES:

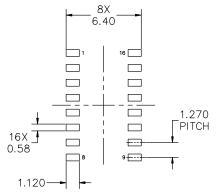
- 1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2018.
- 2. DIMENSION IN MILLIMETERS. ANGLE IN DEGREES.
- 3. DIMENSIONS D AND E1 DO NOT INCLUDE MOLD PROTRUSION.
- 4. MAXIMUM MOLD PROTRUSION 0.15mm PER SIDE.
- 5. DIMENSION 6 DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127mm TOTAL IN EXCESS OF THE 6 DIMENSION AT MAXIMUM MATERIAL CONDITION.







MILLIMETERS					
DIM	MIN	NOM	MAX		
Α	1.35	1.55	1.75		
A1	0.00	0.05	0.10		
A2	1.35	1.50	1.65		
Ь	0.35	0.42	0.49		
С	0.19	0.22	0.25		
D		9.90 BSC			
E	6.00 BSC				
E1	3.90 BSC				
е	1.27 BSC				
h	0.25 0.50				
L	0.40 0.83 1.25				
L1	1.05 REF				
Θ	0.		7.		
TOLERAN	CE OF FC	RM AND	POSITION		
aaa	0.10				
bbb	0.20				
ccc	0.10				
ddd		0.25			
eee	0.10				



#### RECOMMENDED MOUNTING FOOTPRINT

\*FOR ADDITIONAL INFORMATION ON OUR
PB-FREE STRATEGY AND SOLDERING DETAILS,
PLEASE DOWNLOAD THE onsemi SOLDERING
AND MOUNTING TECHNIQUES REFERENCE
MANUAL, SOLDERRM/D

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DESCRIPTION:	SOIC-16 9.90X3.90X1.50 1.27P		PAGE 1 OF 2

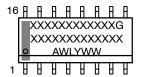
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# SOIC-16 9.90x3.90x1.50 1.27P

CASE 751B ISSUE L

**DATE 29 MAY 2024** 

# GENERIC MARKING DIAGRAM\*



XXXXX = 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.

STYLE 1:		STYLE 2:		STYLE 3:	S	TYLE 4:	
	COLLECTOR	PIN 1.	CATHODE	PIN 1.	COLLECTOR, DYE #1	PIN 1.	COLLECTOR, DYE #1
	BASE	2.	ANODE	2.	BASE. #1	2.	
3.	EMITTER	3.	NO CONNECTION	3.	EMITTER. #1	3.	
4.	NO CONNECTION	4.	CATHODE	4.	COLLECTOR, #1	4.	COLLECTOR, #2
5.	EMITTER	5.	CATHODE	5.	COLLECTOR, #2	5.	COLLECTOR, #3
6.	BASE	6.	NO CONNECTION	6.	BASE, #2	6.	COLLECTOR, #3
7.	COLLECTOR	7.	ANODE	7.	EMITTER, #2	7.	COLLECTOR, #4
8.	COLLECTOR	8.	CATHODE	8.	COLLECTOR, #2	8.	COLLECTOR, #4
9.	BASE	9.	CATHODE	9.	COLLECTOR, #3	9.	BASE, #4
10.	EMITTER	10.	ANODE	10.	BASE, #3	10.	EMITTER, #4
11.	NO CONNECTION	11.	NO CONNECTION	11.	EMITTER, #3	11.	
	EMITTER	12.	CATHODE	12.	COLLECTOR, #3	12.	
13.	BASE	13.		13.	COLLECTOR, #4	13.	BASE, #2
14.	COLLECTOR	14.	NO CONNECTION	14.	BASE, #4	14.	
15.	EMITTER	15.	ANODE	15.	EMITTER, #4	15.	
16.	COLLECTOR	16.	CATHODE	16.	COLLECTOR, #4	16.	EMITTER, #1
STYLE 5:		STYLE 6:		STYLE 7:			
PIN 1.	DRAIN, DYE #1	PIN 1.	CATHODE	PIN 1.	SOURCE N-CH		
2.	DRAIN, #1	2.	CATHODE	2.	COMMON DRAIN (OUTPUT)		
3.	DRAIN, #2	3.	CATHODE	3.	COMMON DRAIN (OUTPUT)		
4.	DRAIN, #2	4.	CATHODE	4.	GATE P-CH		
5.	DRAIN, #3	5.		5.	COMMON DRAIN (OUTPUT)		
6.	DRAIN, #3	6.		6.	COMMON DRAIN (OUTPUT)		
7.	DRAIN, #4		CATHODE	7.	COMMON DRAIN (OUTPUT)		
8.	DRAIN, #4		CATHODE	8.	SOURCE P-CH		
9.	GATE, #4		ANODE	9.	SOURCE P-CH		
10.	SOURCE, #4	10	ANODE	10.	COMMON DRAIN (OUTPUT)		
11.	GATE, #3	11.	ANODE	11.	COMMON DRAIN (OUTPUT)		
12.	GATE, #3 SOURCE, #3	11. 12.	ANODE ANODE	11. 12.	COMMON DRAIN (OUTPUT) COMMON DRAIN (OUTPUT)		
12. 13.	GATE, #3 SOURCE, #3 GATE, #2	11. 12. 13.	ANODE ANODE ANODE	11. 12. 13.	COMMON DRAIN (OUTPUT) COMMON DRAIN (OUTPUT) GATE N-CH		
12. 13. 14.	GATE, #3 SOURCE, #3 GATE, #2 SOURCE, #2	11. 12. 13. 14.	ANODE ANODE ANODE ANODE	11. 12. 13. 14.	COMMON DRAIN (OUTPUT) COMMON DRAIN (OUTPUT) GATE N-CH COMMON DRAIN (OUTPUT)		
12. 13. 14. 15.	GATE, #3 SOURCE, #3 GATE, #2 SOURCE, #2 GATE, #1	11. 12. 13. 14. 15.	ANODE ANODE ANODE ANODE ANODE	11. 12. 13. 14. 15.	COMMON DRAIN (OUTPUT) COMMON DRAIN (OUTPUT) GATE N-CH COMMON DRAIN (OUTPUT) COMMON DRAIN (OUTPUT)		
12. 13. 14.	GATE, #3 SOURCE, #3 GATE, #2 SOURCE, #2	11. 12. 13. 14.	ANODE ANODE ANODE ANODE	11. 12. 13. 14.	COMMON DRAIN (OUTPUT) COMMON DRAIN (OUTPUT) GATE N-CH COMMON DRAIN (OUTPUT)		

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DESCRIPTION:	SOIC-16 9.90X3.90X1.50 1.27P		PAGE 2 OF 2	

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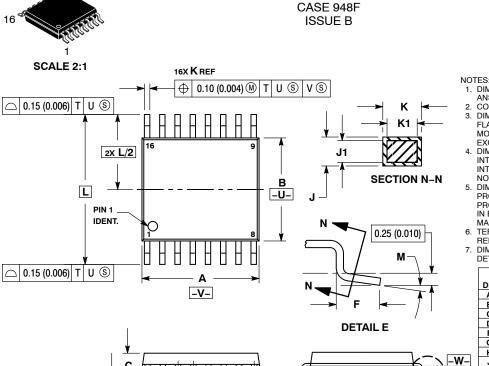
**DATE 19 OCT 2006** 



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SEATING PLANE

D

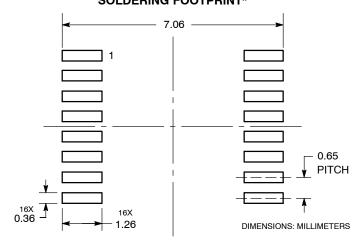


TSSOP-16 WB

- DIMENSIONING AND TOLERANCING PER
- ANSI Y14.5M, 1982. CONTROLLING DIMENSION: MILLIMETER.
- 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.
  DIMENSION B DOES NOT INCLUDE
  INTERLEAD FLASH OR PROTRUSION. INTERLEAD FLASH OR PROTRUSION SHALL
- IN TERLEAD FLASH OH PROTHOSION SHALL NOT EXCEED 0.25 (0.010) PER SIDE. 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.
- TERMINAL NUMBERS ARE SHOWN FOR REFERENCE ONLY.
- DIMENSION A AND B ARE TO BE DETERMINED AT DATUM PLANE -W-.

	MILLIMETERS		INCHES		
DIM	MIN	MAX	MIN	MAX	
Α	4.90	5.10	0.193	0.200	
В	4.30	4.50	0.169	0.177	
С		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		
Н	0.18	0.28	0.007	0.011	
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	
М	0 °	8°	0°	8 °	

#### **RECOMMENDED** SOLDERING FOOTPRINT\*



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

#### **GENERIC** MARKING DIAGRAM\*



XXXX = Specific Device Code Α = Assembly Location

= Wafer Lot L = Year W = Work Week G or • = 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.

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DESCRIPTION:	TSSOP-16		PAGE 1 OF 1

**DETAIL E** 

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