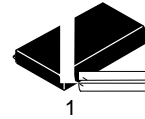


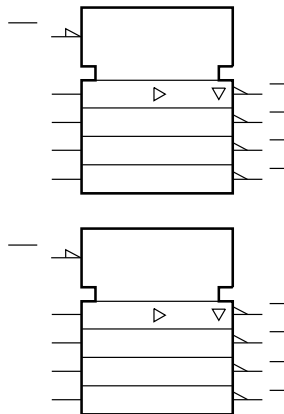
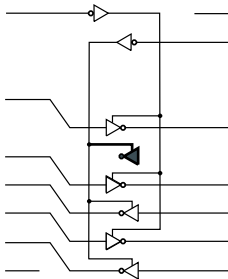
SC C-20W  
CASE 751D



SOIC-20W  
CASE 751BJ

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### MARKING DIAGRAMS




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### ORDERING INFORMATION

See detailed ordering and shipping information on page 6 of this data sheet.

### TRUTH TABLES

Inputs		Outputs (Pins 12, 14, 16, 18)
$\overline{OE}_1$	$I_n$	
L	L	H
L	H	L
H	X	Z

Inputs		Outputs (Pins 3, 5, 7, 9)
$\overline{OE}_2$	$I_n$	
L	L	H
L	H	L
H	X	Z

NOTE: H = HIGH Voltage Level  
L = LOW Voltage Level  
X = Immaterial  
Z = High Impedance

# 74AC240, 74ACT240

## ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Rating	Unit
$V_{CC}$			

**74AC240, 74ACT240**

# 74AC240, 74ACT240

## DC ELECTRICAL CHARACTERISTICS FOR ACT

Symbol	Parameter	V <sub>CC</sub> (V)	Conditions	T <sub>A</sub> = +25 C		T <sub>A</sub> = -40 C to +85 C		Unit
				Typ	Guaranteed Limits			
V <sub>IH</sub>	Minimum HIGH Level Input Voltage	4.5	V <sub>OUT</sub> 0.1 V or V <sub>CC</sub> 0.1 V	1.5	2.0	2.0		V
		5.5		1.5	2.0	2.0		
V <sub>IL</sub>	Maximum LOW Level Input Voltage	4.5	V <sub>OUT</sub> 0.1 V or V <sub>CC</sub> 0.1 V	1.5	0.8	0.8		V
		5.5		1.5	0.8	0.8		
V <sub>OH</sub>	Minimum HIGH Level Output Voltage	4.5	I <sub>OUT</sub> 50 μA	4.49	4.4	4.4		V
		5.5		5.49	5.4	5.4		
		4.5	V <sub>IN</sub> V <sub>IL</sub> or V <sub>IH</sub> , I <sub>OH</sub> 24 mA		3.86	3.76		
		5.5	V <sub>IN</sub> V <sub>IL</sub> or V <sub>IH</sub> , I <sub>OH</sub> 24 mA (Note 4)		4.86	4.76		
V <sub>OL</sub>	Maximum LOW Level Output Voltage	4.5	I <sub>OUT</sub> 50 μA	0.001	0.1	0.1		V
		5.5		0.001	0.1	0.1		
		4.5	V <sub>IN</sub> V <sub>IL</sub> or V <sub>IH</sub> , I <sub>OL</sub> 24 mA		0.36	0.44		
		5.5	V <sub>IN</sub> V <sub>IL</sub> or V <sub>IH</sub> , I <sub>OL</sub> 24 mA (Note 4)		0.36	0.44		
I <sub>IN</sub>	Maximum Input Leakage Current	5.5	V <sub>I</sub> V <sub>CC</sub> , GND		0.1	1.0		μA
I <sub>OZ</sub>	Maximum 3-STATE Leakage Current	5.5	V <sub>I</sub> V <sub>IL</sub> , V <sub>IH</sub> , V <sub>O</sub> V <sub>CC</sub> , GND		0.25	2.5		μA
I <sub>CCT</sub>	Maximum I <sub>CC</sub> /Input	5.5	V <sub>I</sub> V <sub>CC</sub> 2.1 V	0.6		1.5		mA
I <sub>OLD</sub>	Minimum Dynamic Output Current (Note 5)	5.5	V <sub>OLD</sub> 1.65 V Max.			75		mA
I <sub>OHD</sub>		5.5	V <sub>OHD</sub> 3.85 V Min.			75		mA
I <sub>CC</sub>	Maximum Quiescent Supply Current	5.5	V <sub>IN</sub> V <sub>CC</sub> or GND		4.0	40.0		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.

4. All outputs loaded; thresholds on input associated with output under test.
5. Maximum test duration 2.0 ms, one output loaded at a time.

## 74AC240, 74ACT240

### AC ELECTRICAL CHARACTERISTICS FOR AC

Symbol	Parameter	V <sub>CC</sub> (V) (Note 6)	T <sub>A</sub> = +25 C, C <sub>L</sub> = 50 pF			T <sub>A</sub> = -40 C to +85 C, C <sub>L</sub> = 50 pF		Unit
			Min	Typ	Max	Min	Max	
t <sub>PLH</sub>	Propagation Delay, Data to Output	3.3	1.5	6.0	8.0	1.0	9.0	ns
		5.0	1.5	4.5	6.5	1.0	7.0	
t <sub>PHL</sub>	Propagation Delay, Data to Output	3.3	1.5	5.5	8.0	1.0	8.5	ns
		5.0	1.5	4.5	6.0	1.0	6.5	
t <sub>PZH</sub>	Output Enable Time	3.3	1.5	6.0	10.5	1.0	11.0	ns
		5.0	1.5	5.0	7.0	1.0	8.0	
t <sub>PZL</sub>	Output Enable Time	3.3	1.5	7.0	10.0	1.0	11.0	ns
		5.0	1.5	5.5	8.0	1.0	8.5	
t <sub>PHZ</sub>	Output Disable Time	3.3	1.5	7.0	10.0	1.0	10.5	ns
		5.0	1.5	6.5	9.0	1.0	9.5	
t <sub>PLZ</sub>	Output Disable Time	3.3	1.5	7.5	10.5	1.0	11.5	ns
		5.0	1.5	6.5	9.0	1.0	9.5	

6. Voltage range 3.3 is 3.3 V 0.3 V. Voltage range 5.0 is 5.0 V 0.5 V.

### AC ELECTRICAL CHARACTERISTICS FOR ACT

Symbol	Parameter	V <sub>CC</sub> (V) (Note 7)	T <sub>A</sub> = +25 C, C <sub>L</sub> = 50 pF			T <sub>A</sub> = -40 C to +85 C, C <sub>L</sub> = 50 pF		Unit
			Min	Typ	Max	Min	Max	
t <sub>PLH</sub>	Propagation Delay, Data to Output	5.0	1.5	6.0	8.5	1.5	9.5	ns
t <sub>PHL</sub>	Propagation Delay, Data to Output	5.0	1.5	5.5	7.5	1.5	8.5	ns
t <sub>PZH</sub>	Output Enable Time	5.0	1.5	7.0	8.5	1.0	9.5	ns
t <sub>PZL</sub>	Output Enable Time	5.0	2.0	7.0	9.5	1.5	10.5	ns
t <sub>PHZ</sub>	Output Disable Time	5.0	2.0	8.0	9.5	2.0	10.5	ns
t <sub>PLZ</sub>	Output Disable Time	5.0	2.5	6.5	10.0	2.0	10.5	ns

7. Voltage range 5.0 is 5.0 V 0.5 V.

### CAPACITANCE

Symbol	Parameter	Conditions	Typ	Unit
C <sub>IN</sub>	Input Capacitance	V <sub>CC</sub> = OPEN	4.5	pF
C <sub>PD</sub>	Power Dissipation Capacitance	V <sub>CC</sub> = 5.0 V	45.0	pF

## 74AC240, 74ACT240

### ORDERING INFORMATION

Device	Device Marking	Package	Shipping <sup>†</sup>
74AC240SCX	AC240	SOIC–20W, case 751BJ (Pb–Free)	1000 / Tape & Reel
74ACT240SCX	ACT240	SOIC–20W, case 751BJ (Pb–Free)	1000 / Tape & Reel
74ACT240MTC	ACT 240	TSSOP–20, case 948E (Pb–Free)	75 Units / Tube
74ACT240MTCX	ACT 240	TSSOP–20, case 948AQ (Pb–Free)	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.

NOTE: All packages are Pb–Free per JEDEC: J–STD–020B standard.





**SOIC-20 WB**  
CASE 751D-05  
ISSUE H

DATE 22 APR 2015

D

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E

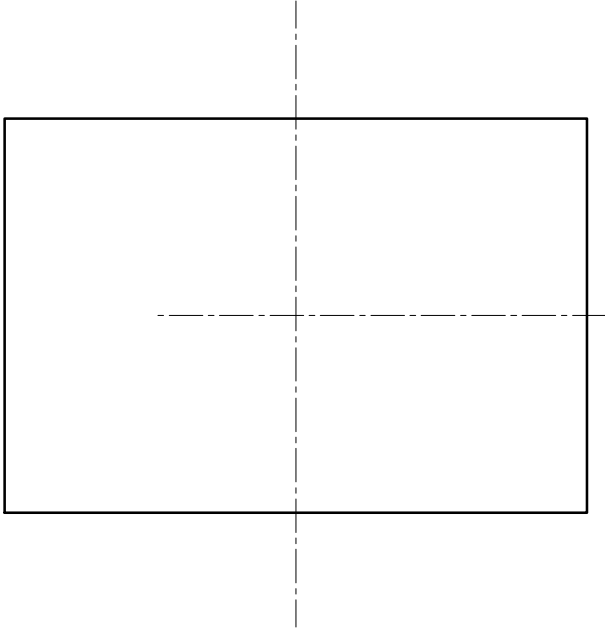
Y

h x ° 4 5



TSSOP-20 WB

TSSOP20, 4.4x6.5



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