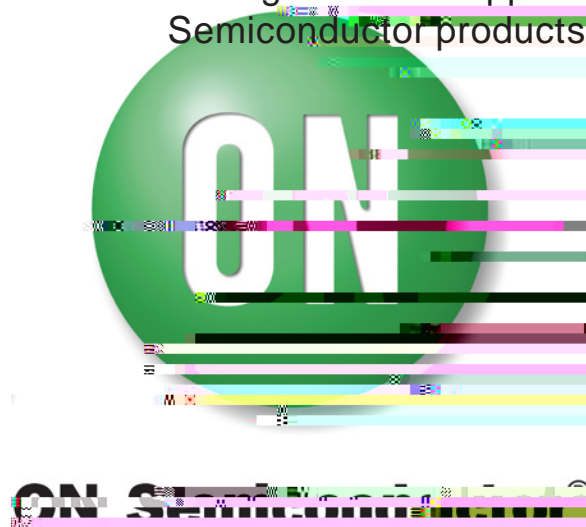


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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.



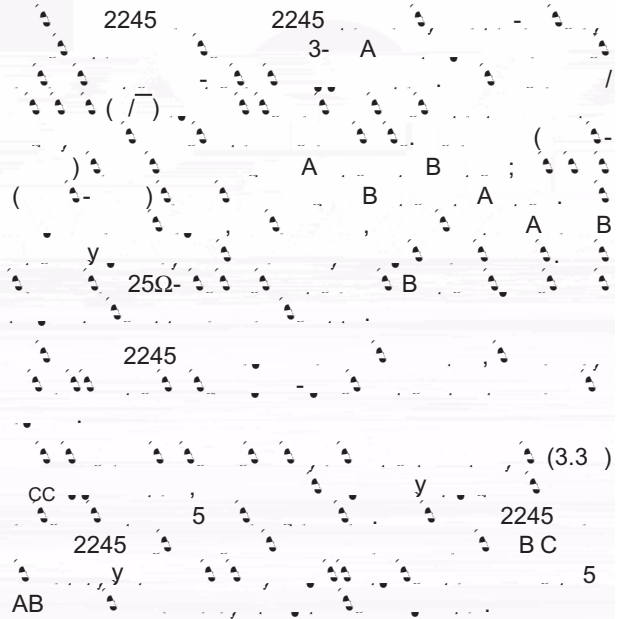
74LVT2245, 74LVTH2245

Low Voltage Octal Bidirectional Transceiver with 3-STATE Inputs/Outputs and 25Ω Series Resistors in the B Port Outputs

Features

- 5 CC
- 25Ω B
- B (74 2245), (74 2245)
- /
- /
- 12 A/+12 A B
- 32 A/+64 A A
- 500 A
- y > 2000
- > 200
- C > 1000

General Description



Ordering Information

Order Number	Package Number	Package Description
74 2245	20B	20- C (C), C -013, 0.300"
74 2245	20	20- (), A , 5.3
74 2245 C	C20	20- (), C -153, 4.4
74 2245	20B	20- C (C), C -013, 0.300"

A C: - -020B



Absolute Maximum Ratings

Symbol	Parameter	Rating
V_{CC}		0.5 to +4.6
	V_C	0.5 to +7.0
	V_C	0.5 to +7.0
	V_C (1)	0.5 to +7.0
	V_C < V_C	50 mA
	V_C < V_C	50 mA
	V_C > V_{CC}	64 mA
		128 mA
V_{CC}	V_C > V_C	64 mA
	V_C > V_C	128 mA
		65 mA to 150 mA

Note:

1. A

Recommended Operating Conditions

Symbol	Parameter	Min	Max	Units
V_C		2.7	3.6	
		0	5.5	
	A		32	mA
	B		12	
	A		64	mA
	B		12	
V_A		40	+85	°C
$\Delta I / \Delta V$	$R_{DS(on)} = 0.8$ to 2.0 , $V_{CC} = 3.0$	0	10	$\mu A/V$



Dynamic Switching Characteristics⁽⁶⁾

Symbol	Parameter	V _{CC} (V)	C _L = 50pF, R _L = 500Ω	Conditions			Units
				T _A = 25°C			
t _{PL}	Propagation delay (input to output)	3.3	(7)	Min.	Typ.	Max.	ns
t _{PH}	Propagation delay (output to input)	3.3	(7)	Min.	Typ.	Max.	ns

Notes:

- 6. C_L is the load capacitance.
- 7. () indicates typical values.

AC Electrical Characteristics

Symbol	Parameter	T _A = -40°C to +85°C, C _L = 50pF, R _L = 500Ω				Units
		V _{CC} = 3.3V ± 0.3V		V _{CC} = 2.7V		
t _{PL}	Propagation delay (input to output)	Min.	Max.	Min.	Max.	ns
t _{PH}	Propagation delay (output to input)	Min.	Max.	Min.	Max.	ns
t _{PL}	Propagation delay (input to output)	1.2	4.4	1.2	5.1	ns
t _{PH}	Propagation delay (output to input)	1.2	4.4	1.2	5.1	ns
t _{PL}	Propagation delay (input to output)	1.2	3.6	1.2	4.0	ns
t _{PH}	Propagation delay (output to input)	1.2	3.5	1.2	4.0	ns
t _{PL}	Propagation delay (input to output)	1.3	6.2	1.3	7.3	ns
t _{PH}	Propagation delay (output to input)	1.7	6.2	1.7	7.3	ns
t _{PL}	Propagation delay (input to output)	1.3	5.5	1.3	7.1	ns
t _{PH}	Propagation delay (output to input)	1.7	5.7	1.7	6.7	ns
t _{PL}	Propagation delay (input to output)	2.0	5.9	2.0	6.5	ns
t _{PH}	Propagation delay (output to input)	2.0	5.4	2.0	5.7	ns
t _{PL}	Propagation delay (input to output)	2.0	5.9	2.0	6.5	ns
t _{PH}	Propagation delay (output to input)	2.0	5.0	2.0	5.1	ns
t _{PL}	Propagation delay (input to output)	(8)	1.0		1.0	ns
t _{PH}	Propagation delay (output to input)	(8)	1.0		1.0	ns

Note:

- 8. () indicates typical values.

Capacitance⁽⁹⁾

Symbol	Parameter	Conditions	Typical	Units
C _{in}	Input capacitance	V _{CC} = 0, V _{in} = 0, V _{out} = 0	4	pF

Note:

- 9. C_{in} is measured at V_{in} = 1, V_{out} = -883, 3012.

Physical Dimensions

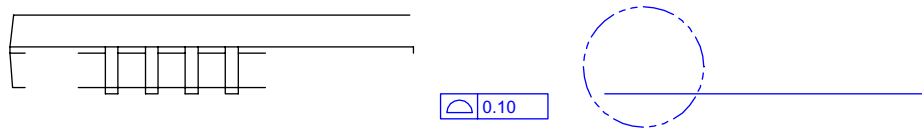


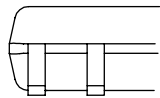
Figure 1. 20-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-013, 0.300" Wide

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Physi



DIMENSIONS ARE IN MILLIMETERS

DETAIL

EVC

Figure 2. 20-Lead Small Outline Package (SOP) — A — PEEL 5.3mm Wide

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TRADEMARKS

ACROSSVOLT

- AC
- B
- C
- CROSSVOLT

