National Semiconductor

ADVANCE INFORMATION

74ABT2245
Octal Bidirectional Transceiver with 25Ω Series Resistors in the Outputs

General Description

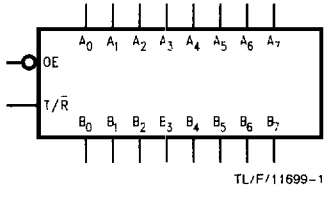
The 'ABT2245 contains eight non-inverting bidirectional buffers with TRI-STATE® outputs and is intended for bus-oriented applications. Current sinking capability is 64 mA on both the A and B ports. The Transmit/Receive ($T/\overline{R}$) input determines the direction of data flow through the bidirectional transceiver. Transmit (active HIGH) enables data from A ports to B ports; Receive (active LOW) enables data from B ports to A ports. The Output Enable input, when HIGH, disables both A and B ports by placing them in a High Z condition. Functionally identical to 'ABT245.

The 25Ω series resistors in the outputs reduce ringing and eliminate the need for external resistors.

Features

- Bidirectional non-inverting buffers
- A and B output sink capability of 64 mA, source capability of 32 mA
- Guaranteed latchup protection
- High impedance glitch-free bus loading during entire power up and power down cycle
- Non-destructive hot insertion capability
- Disable time is less than enable time to avoid bus contention

Logic Symbol



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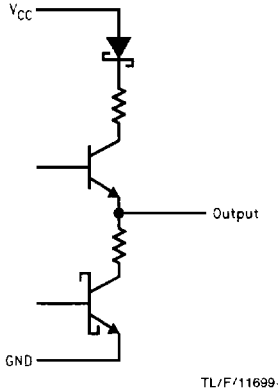
Schematic of Each Output



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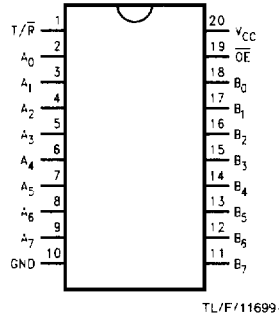
Connection Diagram

Pin Assignment for DIP, SSOP and SOIC



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Pin Descriptions

Pin Names	Description
$\overline{OE}$	Output Enable Input (Active LOW)
$T/\overline{R}$	Transmit/Receive Input
A_0–A_7	Side A Inputs or TRI-STATE Outputs
B_0–B_7	Side B Inputs or TRI-STATE Outputs

Truth Table

Inputs		Output
$\overline{OE}$	$T/\overline{R}$	
L	L	Bus B Data to Bus A
L	H	Bus A Data to Bus B
H	X	High Z State

H = HIGH Voltage Level
L = LOW Voltage Level
X = Immaterial

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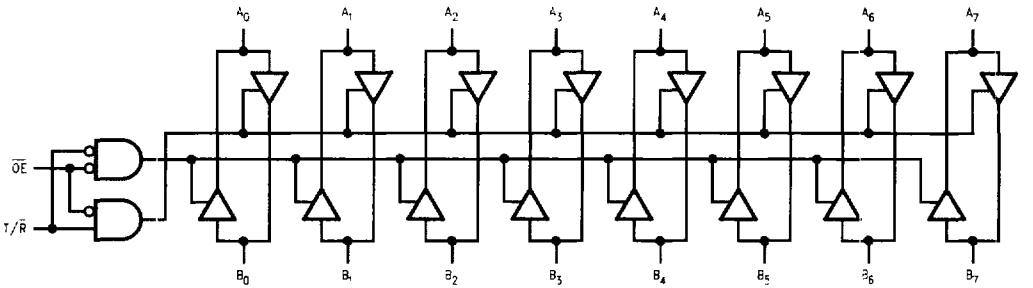
Logic Diagram



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