

DS1692/DS3692 TRI-STATE® Differential Line Drivers

General Description

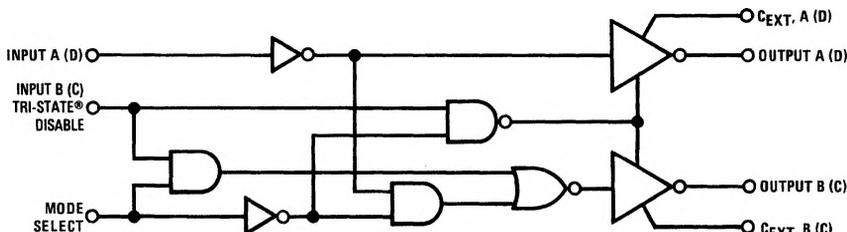
The DS1692/DS3692 are low power Schottky TTL line drivers electrically similar to the DS1691A/DS3691 but tested to meet the requirements of MIL-STD-188-114 (see Application Note AN-216). They feature 4 buffered outputs with high source and sink current capability with internal short circuit protection. A mode control input provides a choice of operation either as 4 independent line drivers or 2 differential line drivers. A rise time control pin allows the use of an external capacitor to reduce rise time for suppression of near end cross-talk to other receivers in the cable.

With the mode select pin low, the DS1692/DS3692 are dual differential line drivers with TRI-STATE outputs. They feature $\pm 10V$ output common-mode range in TRI-STATE and 0V output unbalance when operated with $\pm 5V$ supply.

Features

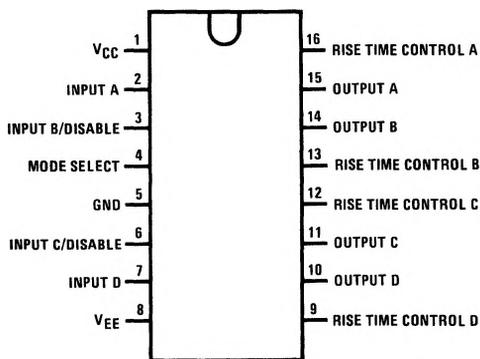
- Dual differential line driver or quad single-ended line driver
- TRI-STATE differential drivers meet MIL-STD-188-114
- Short circuit protection for both source and sink outputs
- Individual rise time control for each output
- 100 Ω transmission line drive capability
- Low I_{CC} and I_{EE} power consumption
 - Differential mode 35 mW/driver typ
 - Single-ended mode 26 mW/driver typ
- Low current PNP inputs compatible with TTL, MOS and CMOS

Logic Diagram (1/2 Circuit Shown)



TL/F/5784-1

Connection Diagram



Top View

TL/F/5784-2

Truth Table

Inputs			Outputs	
Mode	A (D)	B (C)	A (D)	B (C)
0	0	0	0	1
0	0	1	TRI-STATE	TRI-STATE
0	1	0	1	0
0	1	1	TRI-STATE	TRI-STATE
1	0	0	0	0
1	0	1	0	1
1	1	0	1	0
1	1	1	1	1

Order Number DS1692J, DS3692J or DS3692N
See NS Package Number J16A or N16A