



# DS26F32C/DS26F32M

## Quad Differential Line Receiver

### General Description

The DS26F32 is a quad differential line receiver designed to meet the requirements of EIA Standards RS-422 and RS-423, and Federal Standards 1020 and 1030 for balanced and unbalanced digital data transmission.

The DS26F32 offers improved performance due to the use of state-of-the-art L-FAST bipolar technology. The L-FAST technology allows for higher speeds and lower currents by utilizing extremely short gate delay times. Thus, the DS26F32 features lower power, extended temperature range, and improved specifications.

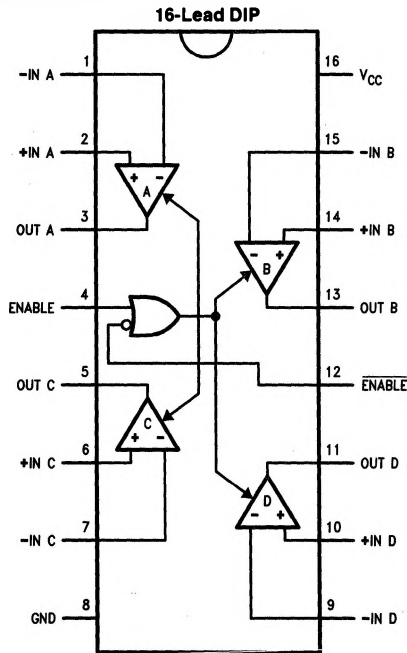
The device features an input sensitivity of 200 mV over the input range of  $\pm 7.0V$ . The DS26F32 provides an enable function common to all four receivers and TRI-STATE® outputs with 8.0 mA sink capability. Also, a fail-safe input/output relationship keeps the outputs high when the inputs are open.

The DS26F32 offers optimum performance when used with the DS26F31 Quad Differential Line Driver.

### Features

- Military temperature range
- Low power version
- Input voltage range of  $\pm 7.0V$  (differential or common mode)  $\pm 0.2V$  sensitivity over the input voltage range
- Meets all the requirements of EIA standards RS-422 and RS-423
- Input impedance (18k typical)
- 30 mV input hysteresis
- Operation from single +5.0V supply
- Fail-safe input/output relationship. Output always high when inputs are open
- TRI-STATE drive, with choice of complementary output enables, for receiving directly onto a data bus
- Propagation delay 15 ns typical
- Advanced low power Schottky processing

### Connection Diagram



### Function Table (Each Receiver)

| Differential Inputs | Enables |           | Outputs |
|---------------------|---------|-----------|---------|
| A-B                 | E       | $\bar{E}$ | V       |
| $V_{ID} \geq 0.2V$  | H       | X         | H       |
|                     | X       | L         | H       |
| $V_{ID} \leq -0.2V$ | H       | X         | L       |
|                     | X       | L         | L       |
| X                   | L       | H         | Z       |

H = High Level  
L = Low Level  
X = Immaterial

**Order Number DS26F32CJ or DS26F32MJ**  
**See NS Package Number J16A**