



## DS96F173/DS96F175 RS-485/RS-422 Quad Differential Receivers

### General Description

The DS96F173 and the DS96F175 are high speed quad differential line receivers designed to meet EIA Standard RS-485. The DS96F173 and the DS96F175 offer 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 DS96F173 and the DS96F175 feature lower power, extended temperature range, improved RS-485 specifications, and meet SCSI specifications.

The DS96F173 and the DS96F175 have TRI-STATE® outputs and are optimized for balanced multipoint data bus transmission at rates up to 15 Mbps. The receivers feature high input impedance, input hysteresis for increased noise immunity, and input sensitivity of 200 mV over a common mode input voltage range of  $-12V$  to  $+12V$ . The receivers are therefore suitable for multipoint applications in noisy environments. The DS96F173 features an active high and active low Enable, common to all four receivers. The DS96F175 features separate active high Enables for each receiver pair.

Compatible RS-485 drivers, transceivers, and repeaters are also offered to provide optimum bus performance. The re-

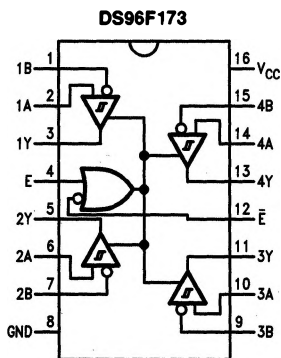
spective device types are DS96F172, DS96F174 and DS36F95.

### Features

- Military temperature range available
- Meets EIA Standard RS-485, RS-422A, RS-423A
- Meets SCSI specifications
- Designed for multipoint bus applications
- TRI-STATE outputs
- Common mode input voltage range:  $-12V$  to  $+12V$
- Operates from single  $+5.0V$  supply
- Lower power version
- Input sensitivity of  $\pm 200$  mV over common mode range
- Input hysteresis of 50 mV typical
- High input impedance
- Fail-safe input/output features drive output HIGH when input is open
- DS96F173 and DS96F175 are lead and function compatible with SN75173/175 or the AM26LS32/MC3486

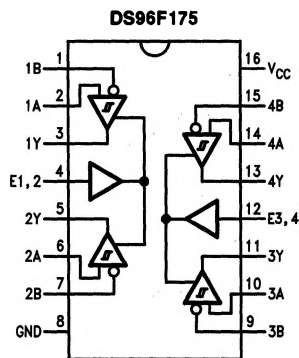
### Connection Diagrams

16-Lead Ceramic Dual-In-Line Package



Top View

TL/F/9627-1



Top View

TL/F/9627-2

Order Number DS96F173CJ, DS96F173MJ,  
DS96F175CJ or DS96F175MJ  
See NS Package Number J16A