



PRELIMINARY

## DS9638/ $\mu$ A9638

### RS-422 Dual High Speed Differential Line Driver

#### General Description

The DS9638/ $\mu$ A9638 is a Schottky, TTL compatible, dual differential line driver designed specifically to meet the EIA Standard RS-422 specifications. It is designed to provide unipolar differential drive to twisted pair or parallel wire transmission lines. The inputs are TTL compatible. The outputs are similar to totem pole TTL outputs, with active pull-up and pull-down. The device features a short circuit protected active pull-up with low output impedance and is specified to drive 50 $\Omega$  transmission lines at high speed. The mini-DIP provides high package density.

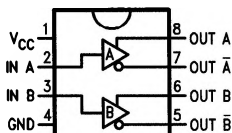
#### Features

- Single 5V supply
- Schottky technology

- TTL and CMOS compatible inputs
- Output short circuit protection
- Input clamp diodes
- Complementary outputs
- Minimum output skew (<1.0 ns typical)
- 50 mA output drive capability for 50 $\Omega$  transmission lines
- Meets EIA RS-422 specifications
- Propagation delay of less than 10 ns
- "Glitchless" differential output
- Delay time stable with  $V_{CC}$  and temperature variations (<2.0 ns typical) (Figure 3)
- Extended temperature range

#### Connection Diagram

8-Lead DIP and SO-8 Package



Top View

TL/F/9622-1

Order Number DS9638RM,  $\mu$ A9638RM/DS9638RC,  
 $\mu$ A9638RC

See NS Package Number J08A

Order Number DS9638SC,  $\mu$ A9638SC

See NS Package Number M08A

Order Number DS9638TC,  $\mu$ A9638TC

See NS Package Number N08E