



**MOTOROLA**

**SN75173  
SN75175**

**Quad EIA-485 Line Receivers**

The Motorola SN75173/175 are monolithic quad differential line receivers with three-state outputs. They are designed specifically to meet the requirements of EIA-485, EIA-422A/23A Standards and CCITT recommendations.

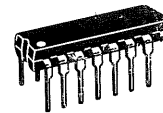
The devices are optimized for balanced multipoint bus transmission at rates up to 10 megabits per second. They also feature high input impedance, input hysteresis for increased noise immunity, and input sensitivity of  $\pm 200$  mV over a common mode input voltage range of  $-12$  V to  $12$  V. The SN75173/175 are designed for optimum performance when used with the SN75172 or SN75174 quad differential line drivers.

- Meets EIA Standards EIA-422A and EIA-423A, EIA-485
- Meets CCITT Recommendations V.10, V.11, X.26, and X.27
- Designed for Multipoint Transmission on Long Bus Lines in Noisy Environments
- 3-State Outputs
- Common-Mode Input Voltage Range . . .  $-12$  V to  $12$  V
- Input Sensitivity . . .  $\pm 200$  mV
- Input Hysteresis . . . 50 mV Typ
- High Input Impedance . . . 1 EIA-485 Unit Load
- Operates from Single 5.0 V Supply
- Lower Power Requirements
- Plug-In Replacement for MC3486 (SN75175)  
AM26LS32 (SN75173)

**QUAD EIA-485  
LINE RECEIVERS WITH  
THREE-STATE OUTPUTS**

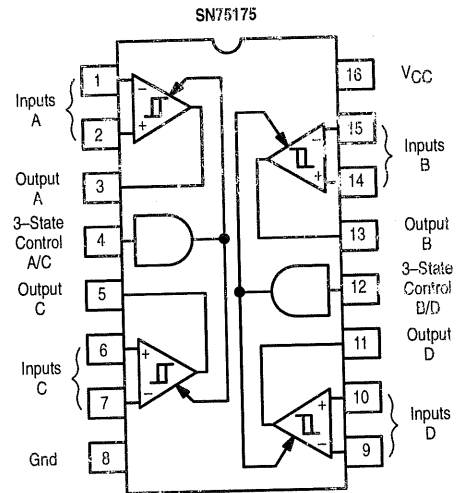
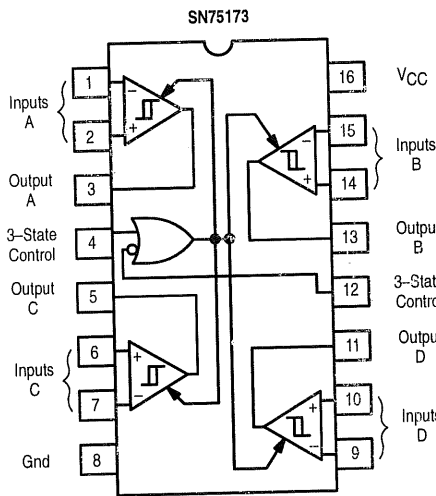
**SEMICONDUCTOR  
TECHNICAL DATA**

**D SUFFIX  
PLASTIC PACKAGE  
CASE 751B  
(SO-16)**



**N SUFFIX  
PLASTIC PACKAGE  
CASE 648**

**PIN CONNECTIONS**



**ORDERING INFORMATION**

Device	Operating Temperature Range	Package
SN75173N	$T_A = 0$ to $+70^\circ\text{C}$	Plastic DIP

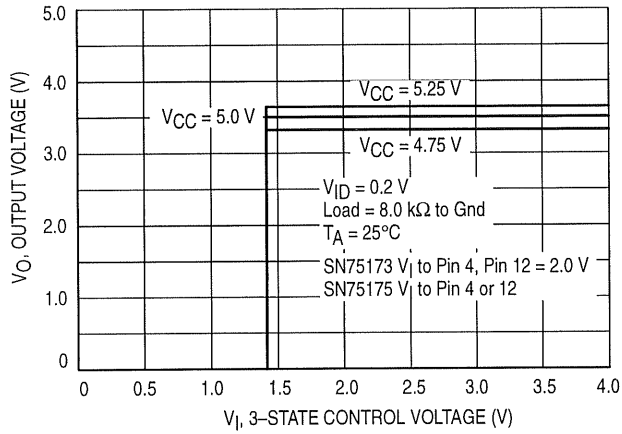
**ORDERING INFORMATION**

Device	Operating Temperature Range	Package
SN75175N	$T_A = 0$ to $+70^\circ\text{C}$	Plastic DIP
SN75175D		SO-16

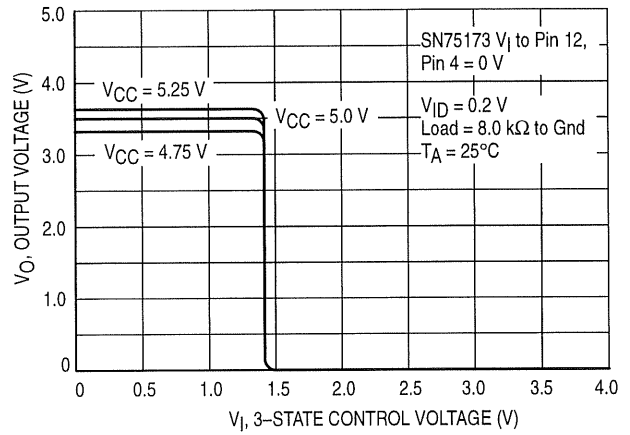
# SN75173 SN75175

## TYPICAL CHARACTERISTICS (continued)

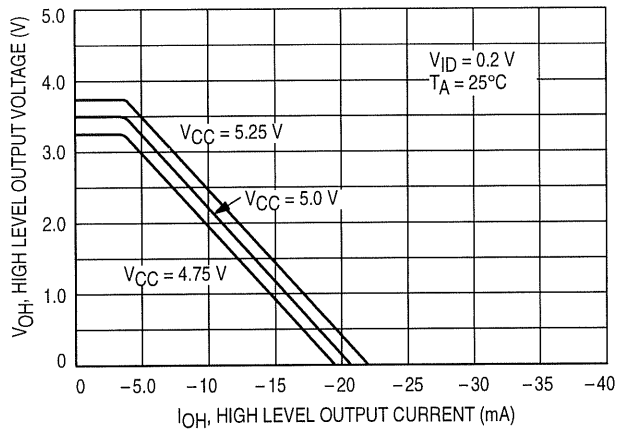
**Figure 4. Output Voltage versus 3-State Control Voltage**



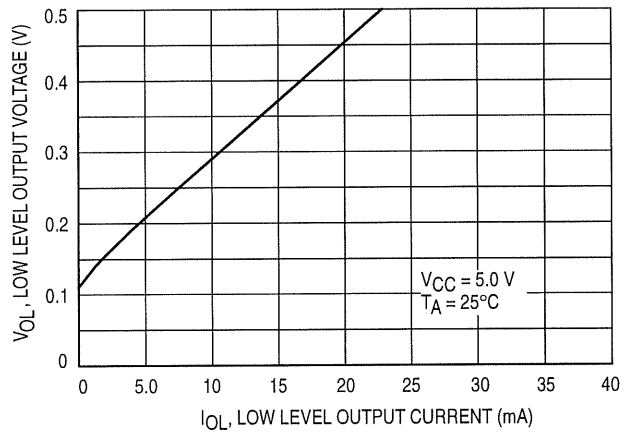
**Figure 5. Output Voltage versus (Inverted) 3-State Control Voltage – SN75173**



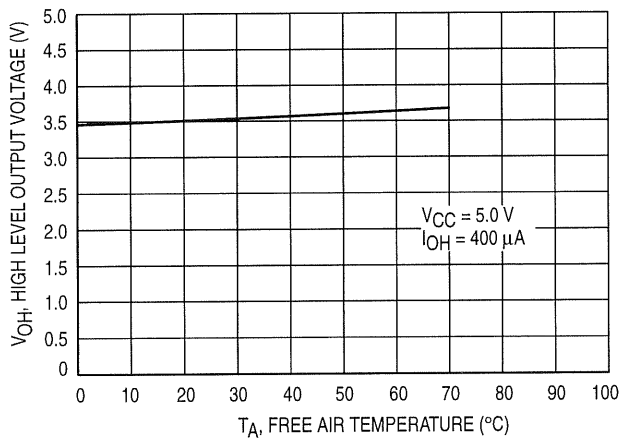
**Figure 6. High Level Output Voltage versus Output Current**



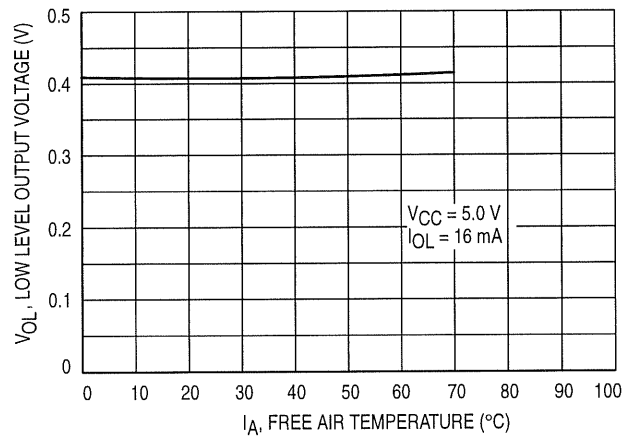
**Figure 7. Low Level Output Voltage versus Output Current**



**Figure 8. High Level Output Voltage versus Temperature**

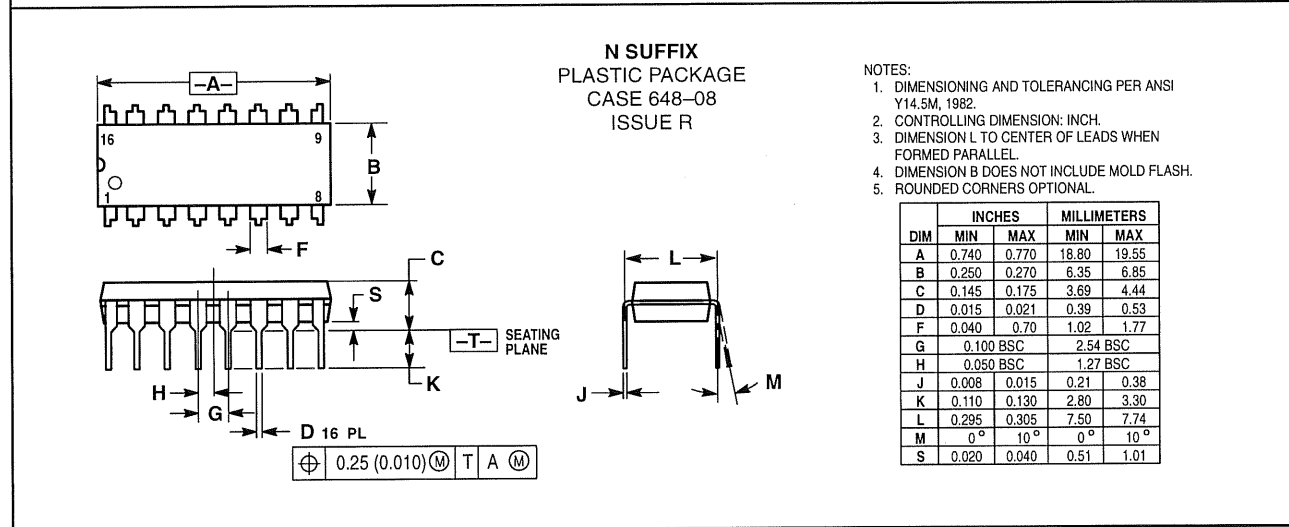
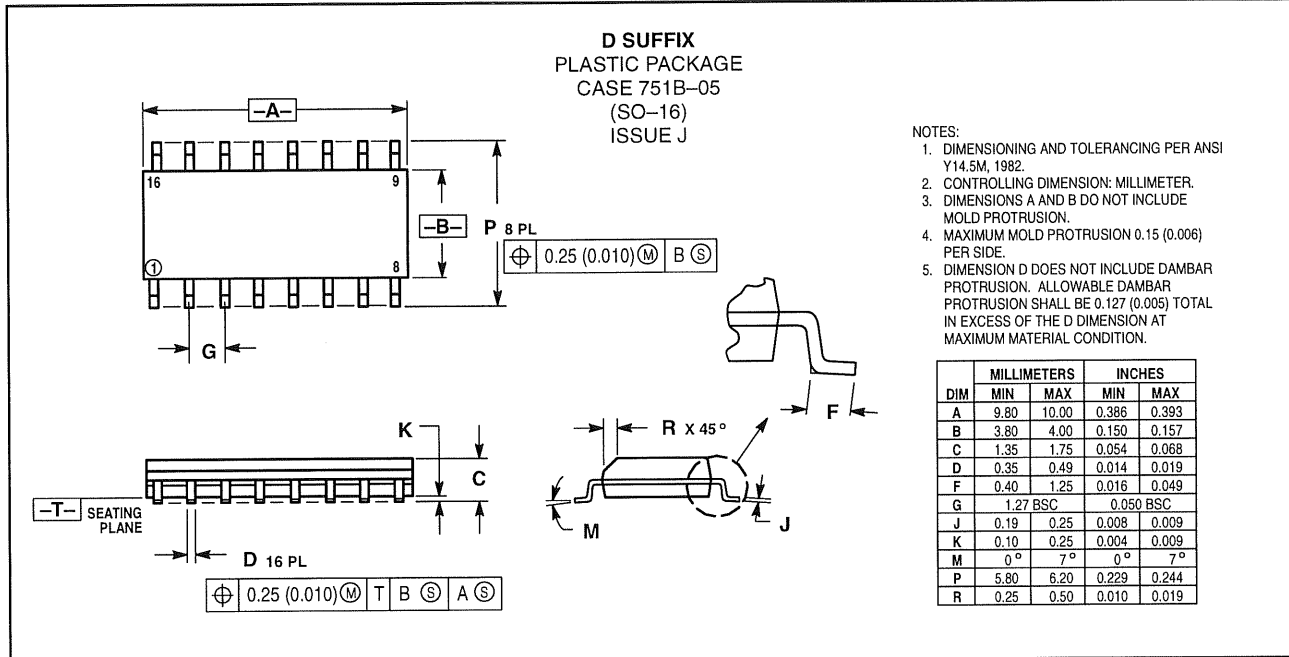


**Figure 9. Low Level Output Voltage versus Temperature**



# SN75173 SN75175

## OUTLINE DIMENSIONS



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SN75173/D

