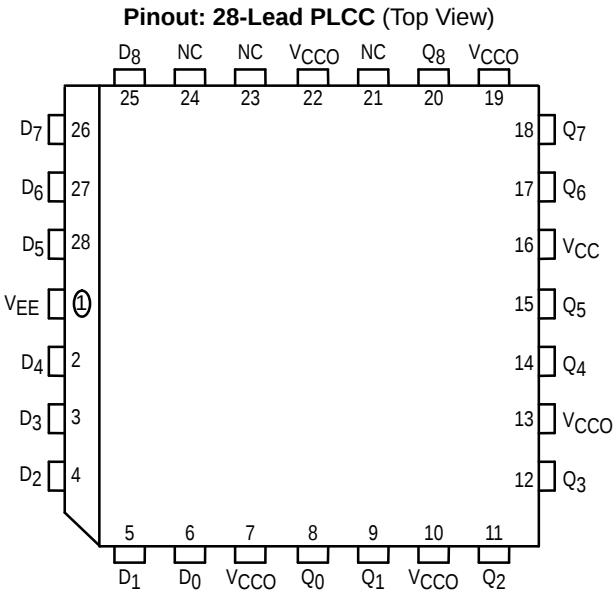


9-Bit Buffer

The MC10E100E122 is a 9-bit buffer. The device contains nine non-inverting buffer gates.

- 500ps Max. Propagation Delay
- Extended 100E V<sub>EE</sub> Range of – 4.2V to – 5.46 V
- 75kΩ Input Pulldown Resistors



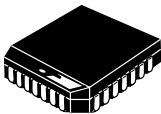
\* All V<sub>CC</sub> and V<sub>CCO</sub> pins are tied together on the die.

PIN NAMES

| Pin                             | Function     |
|---------------------------------|--------------|
| D <sub>0</sub> – D <sub>8</sub> | Data Inputs  |
| Q <sub>0</sub> – Q <sub>8</sub> | Data Outputs |

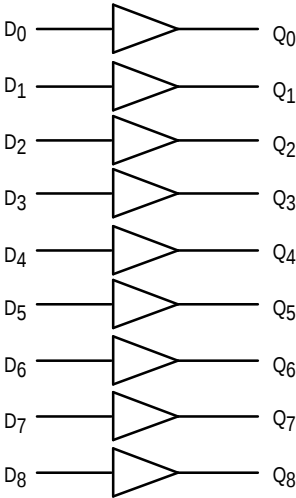
MC10E122  
MC100E122

9-BIT BUFFER



FN SUFFIX  
PLASTIC PACKAGE  
CASE 776-02

LOGIC DIAGRAM



**DC CHARACTERISTICS** ( $V_{EE} = V_{EE(min)}$  to  $V_{EE(max)}$ ;  $V_{CC} = V_{CCO} = GND$ )

| Symbol   | Characteristic       | 0°C |     |     | 25°C |     |     | 85°C |     |     | Unit    | Condition |
|----------|----------------------|-----|-----|-----|------|-----|-----|------|-----|-----|---------|-----------|
|          |                      | min | typ | max | min  | typ | max | min  | typ | max |         |           |
| $I_{IH}$ | Input HIGH Current   |     |     | 200 |      |     | 200 |      |     | 200 | $\mu A$ |           |
| $I_{EE}$ | Power Supply Current |     |     |     |      |     |     |      |     |     | mA      |           |
|          | 10E                  |     | 41  | 49  |      | 41  | 49  |      | 41  | 49  |         |           |
|          | 100E                 |     | 41  | 49  |      | 41  | 49  |      | 47  | 57  |         |           |

**AC CHARACTERISTICS** ( $V_{EE} = V_{EE(min)}$  to  $V_{EE(max)}$ ;  $V_{CC} = V_{CCO} = GND$ )

| Symbol                 | Characteristic                        | 0°C |     |     | 25°C |     |     | 85°C |     |     | Unit | Condition |
|------------------------|---------------------------------------|-----|-----|-----|------|-----|-----|------|-----|-----|------|-----------|
|                        |                                       | min | typ | max | min  | typ | max | min  | typ | max |      |           |
| $t_{PLH}$<br>$t_{PHL}$ | Propagation Delay to Output<br>D to Q | 150 | 350 | 500 | 150  | 350 | 500 | 150  | 350 | 500 | ps   |           |
| $t_{SKEW}$             | Within-Device Skew<br>D to Q          |     | 75  |     |      | 75  |     |      | 75  |     | ps   | 1         |
| $t_r$<br>$t_f$         | Rise/Fall Times<br>20 - 80%           | 300 | 425 | 800 | 300  | 425 | 800 | 300  | 425 | 800 | ps   |           |

1. Within-device skew is defined as identical transitions on similar paths through a device.

## OUTLINE DIMENSIONS

FN SUFFIX  
PLASTIC PLCC PACKAGE  
CASE 776-02  
ISSUE D



## NOTES:

- DATUMS -L-, -M-, AND -N- DETERMINED WHERE TOP OF LEAD SHOULDER EXITS PLASTIC BODY AT MOLD PARTING LINE.
- DIM G1, TRUE POSITION TO BE MEASURED AT DATUM -T-, SEATING PLANE.
- DIM R AND U DO NOT INCLUDE MOLD FLASH. ALLOWABLE MOLD FLASH IS 0.010 (0.250) PER SIDE.
- DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
- CONTROLLING DIMENSION: INCH.
- THE PACKAGE TOP MAY BE SMALLER THAN THE PACKAGE BOTTOM BY UP TO 0.012 (0.300). DIMENSIONS R AND U ARE DETERMINED AT THE OUTERMOST EXTREMES OF THE PLASTIC BODY EXCLUSIVE OF MOLD FLASH, TIE BAR BURRS, GATE BURRS AND INTERLEAD FLASH, BUT INCLUDING ANY MISMATCH BETWEEN THE TOP AND BOTTOM OF THE PLASTIC BODY.
- DIMENSION H DOES NOT INCLUDE DAMBAR PROTRUSION OR INTRUSION. THE DAMBAR PROTRUSION(S) SHALL NOT CAUSE THE H DIMENSION TO BE GREATER THAN 0.037 (0.940). THE DAMBAR INTRUSION(S) SHALL NOT CAUSE THE H DIMENSION TO BE SMALLER THAN 0.025 (0.635).

| DIM | INCHES    |       | MILLIMETERS |       |
|-----|-----------|-------|-------------|-------|
|     | MIN       | MAX   | MIN         | MAX   |
| A   | 0.485     | 0.495 | 12.32       | 12.57 |
| B   | 0.485     | 0.495 | 12.32       | 12.57 |
| C   | 0.165     | 0.180 | 4.20        | 4.57  |
| E   | 0.090     | 0.110 | 2.29        | 2.79  |
| F   | 0.013     | 0.019 | 0.33        | 0.48  |
| G   | 0.050 BSC |       | 1.27 BSC    |       |
| H   | 0.026     | 0.032 | 0.66        | 0.81  |
| J   | 0.020     | —     | 0.51        | —     |
| K   | 0.025     | —     | 0.64        | —     |
| R   | 0.450     | 0.456 | 11.43       | 11.58 |
| U   | 0.450     | 0.456 | 11.43       | 11.58 |
| V   | 0.042     | 0.048 | 1.07        | 1.21  |
| W   | 0.042     | 0.048 | 1.07        | 1.21  |
| X   | 0.042     | 0.056 | 1.07        | 1.42  |
| Y   | —         | 0.020 | —           | 0.50  |
| Z   | 2°        | 10°   | 2°          | 10°   |
| G1  | 0.410     | 0.430 | 10.42       | 10.92 |
| K1  | 0.040     | —     | 1.02        | —     |

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**How to reach us:**

**USA/EUROPE/Locations Not Listed:** Motorola Literature Distribution;  
P.O. Box 20912; Phoenix, Arizona 85036. 1-800-441-2447 or 602-303-5454

**MFAX:** RMFAX0@email.sps.mot.com – TOUCHTONE 602-244-6609  
**INTERNET:** <http://Design-NET.com>

**JAPAN:** Nippon Motorola Ltd.; Tatsumi-SPD-JLDC, 6F Seibu-Butsuryu-Center,  
3-14-2 Tatsumi Koto-Ku, Tokyo 135, Japan. 03-81-3521-8315

**ASIA/PACIFIC:** Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park,  
51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852-26629298

