



# MC100LVEL92

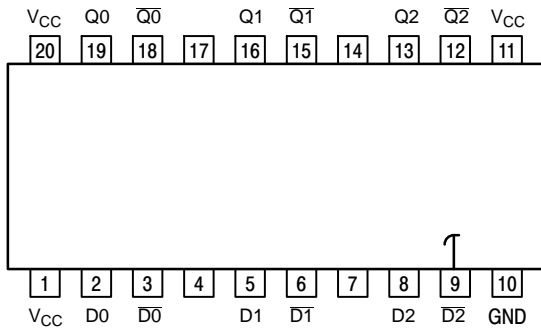


Figure 1. Logic Diagram and Pinout: SO-20 WB (Top View)

# MC100LEVEL92

**Table 3. PECL INPUT DC CHARACTERISTICS** ( $V_{CC} = 5.0\text{ V}$ ;  $LV_{CC} = 3.3\text{ V}$ ;  $GND = 0\text{ V}$  Note 1))

| Symbol        | Characteristic   | -40°C |     |      | 25°C |     |      | 85°C |     |      | Unit |
|---------------|--|-------|-----|------|------|-----|------|------|-----|------|------|
|               |  | Min   | Typ | Max  | Min  | Typ | Max  | Min  | Typ | Max  |      |
| $I_{V_{CC}}$  | PECL Power Supply Current                                    |       |     | 12   |      |     | 12   |      |     | 12   | mA   |
| $V_{IH}$      | Input HIGH Voltage (Single-Ended)                            | 3835  |     | 4120 | 3835 |     | 4120 | 3835 |     | 4120 | mV   |
| $V_{IL}$      | Input LOW Voltage (Single-Ended)                             | 3190  |     | 3515 | 3190 |     | 3525 | 3190 |     | 3525 | mV   |
| PECL $V_{BB}$ | Output Voltage Reference                                     | 3.62  |     | 3.74 | 3.62 |     | 3.74 | 3.62 |     | 3.74 | V    |
| $V_{IHCMR}$   | Input HIGH Voltage Common Mode Range (Differential) (Note 2) |       |     |      |      |     |      |      |     |      | V    |
|               | $V_{pp} < 500\text{ mV}$                                     | 1.3   |     | 4.8  | 1.2  |     | 4.8  | 1.2  |     | 4.8  |      |
|               | $V_{pp} \geq 500\text{ mV}$                                  | 1.5   |     | 4.8  | 1.4  |     | 4.8  | 1.4  |     | 4.8  |      |
| $I_{IH}$      | Input HIGH Current   |       |     | 150  |      |     | 150  |      |     | 150  |      |

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**Table 5. AC CHARACTERISTICS** ( $V_{CC} = 5.0\text{ V}$ ;  $LV_{CC} = 3.3\text{ V}$ ;  $GND = 0\text{ V}$  (Note 5))

| Symbol                 | Characteristic  | -40°C      |                |            | 25°C       |                |            | 85°C       |                |            | Unit |
|------------------------|---|------------|----------------|------------|------------|----------------|------------|------------|----------------|------------|------|
|                        |   | Min        | Typ            | Max        | Min        | Typ            | Max        | Min        | Typ            | Max        |      |
| $f_{max}$              | Maximum Toggle Frequency  |            | TBD            |            |            | TBD            |            |            | TBD            |            | GHz  |
| $t_{PLH}$<br>$t_{PHL}$ | Propagation Delay<br>Diff<br>D to Q<br>S.E.   | 490<br>440 | 590<br>590     | 690<br>740 | 510<br>460 | 610<br>610     | 710<br>760 | 530<br>480 | 630<br>630     | 730<br>780 | ps   |
| $t_{SKEW}$             | Skew<br>Output-to-Output (Note 6)<br>Part-to-Part (Diff) (Note 6)<br>Duty Cycle (Diff) (Note 7) |            | 20<br>20<br>25 | 100<br>200 |            | 20<br>20<br>25 | 100<br>200 |            | 20<br>20<br>25 | 100<br>200 | ps   |
| $t_{JITTER}$           | Cycle-to-Cycle Jitter   |            | TBD            |            |            | TBD            |            |            | TBD            |            | ps   |
| $V_{PP}$               | Input Swing (Note 8)  | 150        |                |            |            |                |            |            |                |            |      |

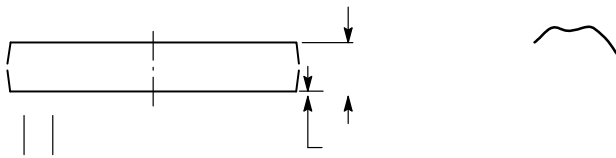
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Resource Reference of Application Notes

[AN1405/D](#)

SOIC-20 WB  
CASE 751D-05  
ISSUE H

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