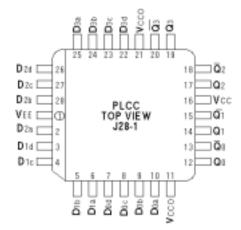
### PACKAGE/ORDERING INFORMATION



### 28-Pin PLCC (J28-1)

# Ordering Information<sup>(1)</sup>

| Part Number                     | Package<br>Type | Operating<br>Range | Package<br>Marking                             | Lead<br>Finish |  |  |
|---------------------------------|-----------------|--------------------|--|----------------|--|--|
| SY10E101JI                      | J28-1           | Industrial         | SY10E101JI                                     | Sn-Pb          |  |  |
| SY10E101JITR <sup>(2)</sup>     | J28-1           | Industrial         | SY10E101JI                                     | Sn-Pb          |  |  |
| SY100E101JI                     | J28-1           | Industrial         | Industrial SY100E101JI                         |                |  |  |
| SY100E101JITR <sup>(2)</sup>    | J28-1           | Industrial         | SY100E101JI                                    | Sn-Pb          |  |  |
| SY10E101JC                      | J28-1           | Commercial         | SY10E101JC                                     | Sn-Pb          |  |  |
| SY10E101JCTR <sup>(2)</sup>     | J28-1           | Commercial         | SY10E101JC                                     | Sn-Pb          |  |  |
| SY100E101JC                     | J28-1           | Commercial         | SY100E101JC                                    | Sn-Pb          |  |  |
| SY100E101JCTR <sup>(2)</sup>    | J28-1           | Commercial         | SY100E101JC                                    | Sn-Pb          |  |  |
| SY10E101JY <sup>(3)</sup>       | J28-1           | Industrial         | SY10E101JY with<br>Pb-Free bar-line indicator  | Matte-Sn       |  |  |
| SY10E101JYTR <sup>(2, 3)</sup>  | J28-1           | Industrial         | SY10E101JY with<br>Pb-Free bar-line indicator  | Matte-Sn       |  |  |
| SY100E101JY <sup>(3)</sup>      | J28-1           | Industrial         | SY100E101JY with<br>Pb-Free bar-line indicator | Matte-Sn       |  |  |
| SY100E101JYTR <sup>(2, 3)</sup> | J28-1           | Industrial         | SY100E101JY with<br>Pb-Free bar-line indicator | Matte-Sn       |  |  |

#### Notes:

1. Contact factory for die availability. Dice are guaranteed at  $T_A = 25^{\circ}C$ , DC Electricals only.

2. Tape and Reel.

3. Pb-Free package is recommended for new designs.

# LOGIC EQUATION

Qn = Dna + Dnb + Dnc + Dnd

# DC ELECTRICAL CHARACTERISTICS<sup>(1)</sup>

VEE = VEE(Min.) to VEE(Max.); VCC = VCCO = GND

|        |                                       | TA = −40°C |          |          | ٦    | TA = 0°C |          |      | TA = +25°C |          |      | TA = +85°C |          |      |
|--------|---------------------------------------|------------|----------|----------|------|----------|----------|------|------------|----------|------|------------|----------|------|
| Symbol | Parameter                             | Min.       | Тур.     | Max.     | Min. | Тур.     | Max.     | Min. | Тур.       | Max.     | Min. | Тур.       | Max.     | Unit |
| Іін    | Input HIGH Current                    | —          | _        | 150      | _    | -        | 150      | _    | -          | 150      | _    | _          | 150      | μΑ   |
| IEE    | Power Supply Current<br>10EL<br>100EL |            | 30<br>30 | 36<br>36 |      | 30<br>30 | 36<br>36 |      | 30<br>30   | 36<br>36 |      | 30<br>35   | 36<br>42 | mA   |

Note:

1. Specification for packaged product only.

# AC ELECTRICAL CHARACTERISTICS<sup>(3)</sup>

VEE = VEE(Min.) to VEE(Max.); VCC = VCCO = GND

|          |  | TA = −40°C |          | ٦    | TA = 0°C |          |      | TA = +25°C |          |      | TA = +85°C |          |      |          |
|----------|--|------------|----------|------|----------|----------|------|------------|----------|------|------------|----------|------|----------|
| Symbol   | Parameter  | Min.       | Тур.     | Max. | Min.     | Тур.     | Max. | Min.       | Тур.     | Max. | Min.       | Тур.     | Max. | Unit     |
| tPD      | Propagation Delay to<br>Output D to Q                                | 150        | —        | 550  | 200      | 350      | 500  | 200        | 350      | 500  | 200        | 350      | 500  | ps       |
| tskew    | Within-Device Skew <sup>(1)</sup><br>Within-Gate Skew <sup>(2)</sup> |            | 50<br>25 |      |          | 50<br>25 |      |            | 50<br>25 |      |            | 50<br>25 |      | ps<br>ps |
| tr<br>tf | Rise/Fall Time<br>20% to 80%   | 275        | —        | 625  | 300      | 380      | 575  | 300        | 380      | 575  | 300        | 380      | 575  | ps       |

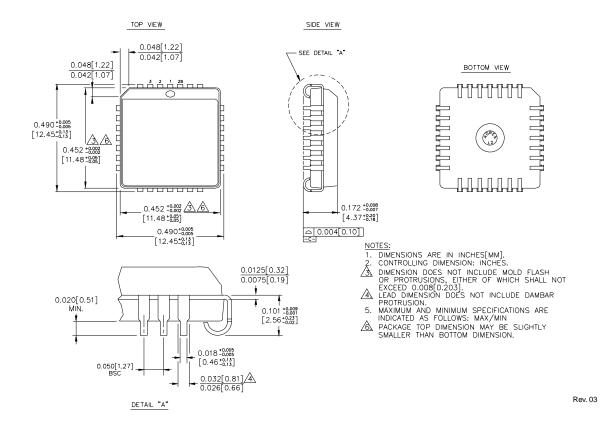
#### Notes:

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

2. Within-gate skew is defined as the variation in propagation delays through a single gate when driven from its different inputs.

3. Specification for packaged product only.

### 28-PIN PLCC (J28-1)



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