

## NC7SV57 • NC7SV58

### TinyLogic® ULP-A Universal Configurable 2-Input Logic Gates

#### General Description

The NC7SV57 and NC7SV58 are universal configurable 2-input logic gates from Fairchild's Ultra Low Power (ULP-A) Series of TinyLogic®. ULP-A is ideal for applications that require extreme high speed, high drive and low power. This product is designed for a wide low voltage operating range (0.9V to 3.6V  $V_{CC}$ ) and applications that require more drive and speed than the TinyLogic ULP series, but still offer best in class low power operation. Each device is capable of being configured for 1 of 5 unique 2-input logic functions. Any possible 2-input combinatorial logic function can be implemented as shown in the Function Selection Table. Device functionality is selected by how the device is wired at the board level. Figure 1 through Figure 10 illustrate how to connect the NC7SV57 and NC7SV58 respectively for the desired logic function. All inputs have been implemented with hysteresis.

The NC7SV57 and NC7SV58 are uniquely designed for optimized power and speed, and are fabricated with an advanced CMOS technology to achieve high-speed operation while maintaining low CMOS power dissipation.

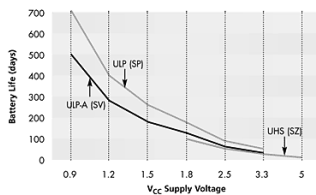
#### Features

- 0.9V to 3.6V  $V_{CC}$  supply operation
- 3.6V overvoltage tolerant I/O's at  $V_{CC}$  from 0.9V to 3.6V
- Extremely High Speed  $t_{PD}$ 
  - 2.5 ns typ for 2.7V to 3.6V  $V_{CC}$
  - 3.1 ns typ for 2.3V to 2.7V  $V_{CC}$
  - 4.0 ns typ for 1.65V to 1.95V  $V_{CC}$
  - 6.0 ns typ for 1.4V to 1.6V  $V_{CC}$
  - 8.0 ns typ for 1.1V to 1.3V  $V_{CC}$
  - 23.0 ns typ for 0.9V  $V_{CC}$
- Power-Off high impedance inputs and outputs
- High Static Drive ( $I_{OH}/I_{OL}$ )
  - ±24 mA @ 3.0V  $V_{CC}$
  - ±18 mA @ 2.30V  $V_{CC}$
  - ±6 mA @ 1.65V  $V_{CC}$
  - ±4 mA @ 1.4V  $V_{CC}$
  - ±2 mA @ 1.1V  $V_{CC}$
  - ±0.1 mA @ 0.9V  $V_{CC}$
- Uses patented Quiet Series™ noise/EMI reduction circuitry
- Ultra small MicroPak™ leadfree package
- Ultra low Dynamic Power

#### Ordering Code:

| Order Number | Package Number | Product Code Top Mark | Package Description                 | Supplied As               |
|--------------|----------------|-----------------------|-------------------------------------|---------------------------|
| NC7SV57P6X   | MAA06A         | V57                   | 6-Lead SC70, EIAJ SC88, 1.25mm Wide | 3k Units on Tape and Reel |
| NC7SV57L6X   | MAC06A         | H3                    | 6-Lead MicroPak, 1.0mm Wide         | 5k Units on Tape and Reel |
| NC7SV58P6X   | MAA06A         | V58                   | 6-Lead SC70, EIAJ SC88, 1.25mm Wide | 3k Units on Tape and Reel |
| NC7SV58L6X   | MAC06A         | H4                    | 6-Lead MicroPak, 1.0mm Wide         | 5k Units on Tape and Reel |

#### Battery Life vs. $V_{CC}$ Supply Voltage



TinyLogic ULP and ULP-A with up to 50% less power consumption can extend your battery life significantly.

$$\text{Battery Life} = (V_{\text{battery}} \cdot I_{\text{battery}} \cdot 9) / (P_{\text{device}}) / 24 \text{hrs/day}$$

$$\text{Where, } P_{\text{device}} = (I_{CC} \cdot V_{CC}) + (C_{PD} + C_L) \cdot V_{CC}^2 \cdot f$$

Assumes ideal 3.6V Lithium Ion battery with current rating of 900mAh and derated 90% and device frequency at 10MHz, with  $C_L = 15$  pF load

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### Pin Descriptions

| Pin Name                                         | Description |
|--------------------------------------------------|-------------|
| I <sub>0</sub> , I <sub>1</sub> , I <sub>2</sub> | Data Inputs |
| Y                                                | Output      |

### Function Table

| Inputs         |                |                | NC7SV57                                     | NC7SV58                                           |
|----------------|----------------|----------------|---------------------------------------------|---------------------------------------------------|
| I <sub>2</sub> | I <sub>1</sub> | I <sub>0</sub> | $Y = (I_0) \cdot (I_2) + (I_1) \cdot (I_2)$ | $Y = (I_0) \cdot (I_2) + (\bar{I}_1) \cdot (I_2)$ |
| L              | L              | L              | H                                           | L                                                 |
| L              | L              | H              | L                                           | H                                                 |
| L              | H              | L              | H                                           | L                                                 |
| L              | H              | H              | L                                           | H                                                 |
| H              | L              | L              | L                                           | H                                                 |
| H              | L              | H              | L                                           | H                                                 |
| H              | H              | L              | H                                           | L                                                 |
| H              | H              | H              | H                                           | L                                                 |

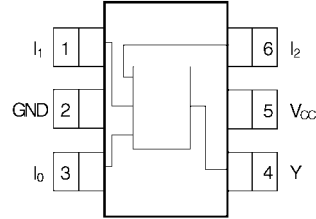
H = HIGH Logic Level  
L = LOW Logic Level

### Function Selection Table

| 2-Input Logic Function                 | Device Selection | Connection Configuration |
|----------------------------------------|------------------|--------------------------|
| 2-Input AND                            | NC7SV57          | Figure 1                 |
| 2-Input AND with inverted input        | NC7SV58          | Figures 7, 8             |
| 2-Input AND with both inputs inverted  | NC7SV57          | Figure 4                 |
| 2-Input NAND                           | NC7SV58          | Figure 6                 |
| 2-Input NAND with inverted input       | NC7SV57          | Figures 2, 3             |
| 2-Input NAND with both inputs inverted | NC7SV58          | Figure 9                 |
| 2-Input OR                             | NC7SV58          | Figure 9                 |
| 2-Input OR with inverted input         | NC7SV57          | Figures 2, 3             |
| 2-Input OR with both inputs inverted   | NC7SV58          | Figure 6                 |
| 2-Input NOR                            | NC7SV57          | Figure 4                 |
| 2-Input NOR with inverted input        | NC7SV58          | Figures 7, 8             |
| 2-Input NOR with both inputs inverted  | NC7SV57          | Figure 1                 |
| 2-Input XOR                            | NC7SV58          | Figure 10                |
| 2-Input XNOR                           | NC7SV57          | Figure 5                 |

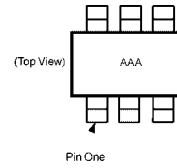
### Connection Diagrams

#### Pin Assignments for SC70



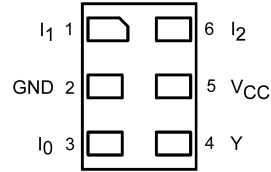
(Top View)

#### Pin One Orientation Diagram



AAA represents Product Code Top Mark - see ordering code  
**Note:** Orientation of Top Mark determines Pin One location. Read the top product code mark left to right, Pin One is the lower left pin (see diagram).

#### Pad Assignments for MicroPak



(Top Thru View)

## Logic Configurations NC7SV57

Figure 1 through Figure 5 show the logical functions that can be implemented using the NC7SV57. The diagrams show the DeMorgan's equivalent logic duals for a given 2-input function. Next to the logical implementation is the board level physical implementation of how the pins of the function should be connected.

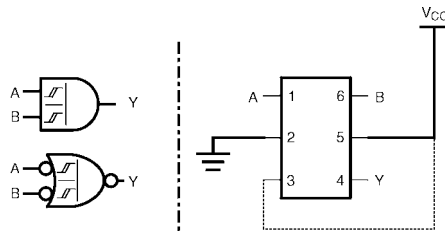


FIGURE 1. 2-Input AND Gate

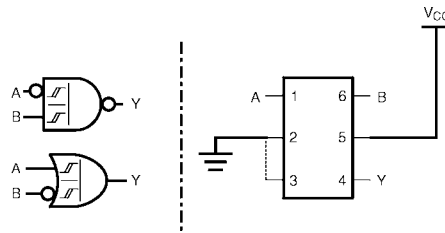


FIGURE 2. 2-Input NAND with Inverted A Input

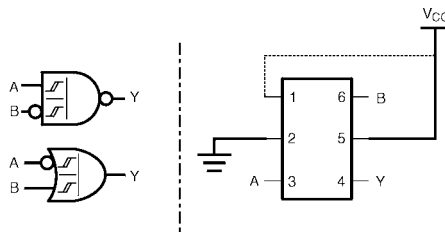


FIGURE 3. 2-Input NAND with Inverted B Input

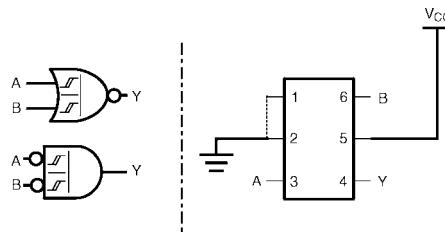


FIGURE 4. 2-Input NOR Gate

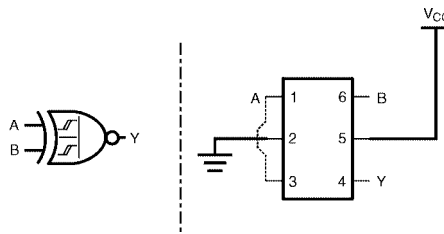


FIGURE 5. 2-Input XNOR Gate

### Logic Configurations NC7SV58

Figure 6 through Figure 10 show the logical functions that can be implemented using the NC7SV58. The diagrams show the DeMorgan's equivalent logic duals for a given 2-input function. Next to the logical implementation is the board level physical implementation of how the pins of the function should be connected.

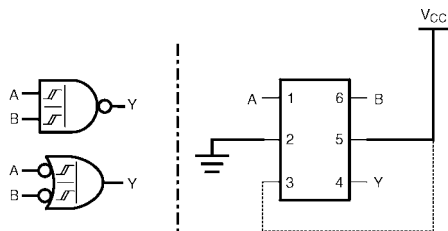


FIGURE 6. 2-Input NAND Gate

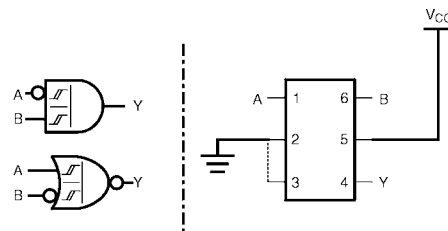


FIGURE 7. 2-Input AND with Inverted A Input

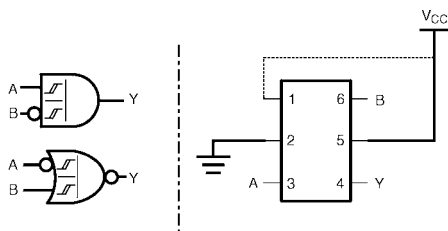


FIGURE 8. 2-Input AND with Inverted B Input

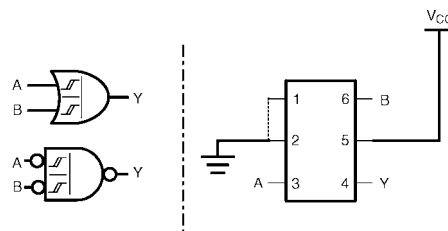


FIGURE 9. 2-Input OR Gate

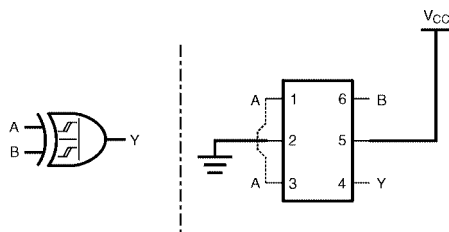


FIGURE 10. 2-Input XOR Gate

| <b>Absolute Maximum Ratings</b> (Note 1)          |                         | <b>Recommended Operating Conditions</b> (Note 3) |                |
|---------------------------------------------------|-------------------------|--------------------------------------------------|----------------|
| Supply Voltage ( $V_{CC}$ )                       | -0.5V to +4.6V          | Supply Voltage                                   | 0.9V to 3.6V   |
| DC Input Voltage ( $V_{IN}$ )                     | -0.5V to +4.6V          | Input Voltage ( $V_{IN}$ )                       | 0V to 3.6V     |
| DC Output Voltage ( $V_{OUT}$ )                   |                         | Output Voltage ( $V_{OUT}$ )                     |                |
| HIGH or LOW State (Note 2)                        | -0.5V to $V_{CC}$ +0.5V | $V_{CC} = 0.0V$                                  | 0V to 3.6V     |
| $V_{CC} = 0V$                                     | -0.5V to +4.6V          | HIGH or LOW State                                | 0V to $V_{CC}$ |
| DC Input Diode Current ( $I_{IK}$ ) $V_{IN} < 0V$ | ±50 mA                  | Output Current in $I_{OH}/I_{OL}$                |                |
| DC Output Diode Current ( $I_{OK}$ )              |                         | $V_{CC} = 3.0V$ to 3.6V                          | ±24 mA         |
| $V_{OUT} < 0V$                                    | -50 mA                  | $V_{CC} = 2.3V$ to 2.7V                          | ±18 mA         |
| $V_{OUT} > V_{CC}$                                | +50 mA                  | $V_{CC} = 1.65V$ to 1.95V                        | ±6 mA          |
| DC Output Source/Sink Current ( $I_{OH}/I_{OL}$ ) | ± 50 mA                 | $V_{CC} = 1.4V$ to 1.6V                          | ±4 mA          |
| DC $V_{CC}$ or Ground Current per                 |                         | $V_{CC} = 1.1V$ to 1.3V                          | ±2 mA          |
| Supply Pin ( $I_{CC}$ or Ground)                  | ± 50 mA                 | $V_{CC} = 0.9V$                                  | ±0.1 mA        |
| Storage Temperature Range ( $T_{STG}$ )           | -65°C to +150°C         | Free Air Operating Temperature ( $T_A$ )         | -40°C to +85°C |
|                                                   |                         | Minimum Input Edge Rate ( $\Delta t/\Delta V$ )  |                |
|                                                   |                         | $V_{IN} = 0.8V$ to 2.0V, $V_{CC} = 3.0V$         | 10 ns/V        |

**Note 1:** Absolute Maximum Ratings: are those values beyond which the safety of the device cannot be guaranteed. The device should not be operated at these limits. The parametric values defined in the Electrical Characteristics tables are not guaranteed at the absolute maximum ratings. The "Recommended Operating Conditions" table will define the conditions for actual device operation.

**Note 2:**  $I_O$  Absolute Maximum Rating must be observed.

**Note 3:** Unused inputs must be held HIGH or LOW. They may not float.

### DC Electrical Characteristics

| Symbol | Parameter                  | $V_{CC}$<br>(V) | $T_A = +25^\circ C$ |      | $T_A = -40^\circ C$ to $+85^\circ C$ |      | Units | Conditions |
|--------|----------------------------|-----------------|---------------------|------|--------------------------------------|------|-------|------------|
|        |                            |                 | Min                 | Max  | Min                                  | Max  |       |            |
| $V_P$  | Positive Threshold Voltage | 0.90            | 0.3                 | 0.7  | 0.3                                  | 0.7  | V     |            |
|        |                            | 1.10            | 0.4                 | 1.0  | 0.4                                  | 1.0  |       |            |
|        |                            | 1.40            | 0.5                 | 1.4  | 0.5                                  | 1.4  |       |            |
|        |                            | 1.65            | 0.7                 | 1.5  | 0.7                                  | 1.5  |       |            |
|        |                            | 2.30            | 1.0                 | 1.8  | 1.0                                  | 1.8  |       |            |
|        |                            | 2.70            | 1.3                 | 2.2  | 1.3                                  | 2.2  |       |            |
| $V_N$  | Negative Threshold Voltage | 0.90            | 0.10                | 0.6  | 0.1                                  | 0.6  | V     |            |
|        |                            | 1.10            | 0.15                | 0.7  | 0.15                                 | 0.7  |       |            |
|        |                            | 1.40            | 0.2                 | 0.8  | 0.2                                  | 0.8  |       |            |
|        |                            | 1.65            | 0.25                | 0.9  | 0.25                                 | 0.9  |       |            |
|        |                            | 2.30            | 0.4                 | 1.15 | 0.4                                  | 1.15 |       |            |
|        |                            | 2.70            | 0.6                 | 1.5  | 0.6                                  | 1.5  |       |            |
| $V_H$  | Hysteresis Voltage         | 0.90            | 0.07                | 0.5  | 0.07                                 | 0.5  | V     |            |
|        |                            | 1.10            | 0.08                | 0.6  | 0.08                                 | 0.6  |       |            |
|        |                            | 1.40            | 0.1                 | 0.8  | 0.1                                  | 0.8  |       |            |
|        |                            | 1.65            | 0.15                | 1.0  | 0.15                                 | 1.0  |       |            |
|        |                            | 2.30            | 0.25                | 1.1  | 0.25                                 | 1.1  |       |            |
|        |                            | 2.70            | 0.40                | 1.2  | 0.40                                 | 1.2  |       |            |

| DC Electrical Characteristics (Continued) |                               |                               |                        |     |                                 |                                 |       |                                               |                                                      |                |
|-------------------------------------------|-------------------------------|-------------------------------|------------------------|-----|---------------------------------|---------------------------------|-------|-----------------------------------------------|------------------------------------------------------|----------------|
| Symbol                                    | Parameter                     | V <sub>CC</sub><br>(V)        | T <sub>A</sub> = +25°C |     | T <sub>A</sub> = -40°C to +85°C |                                 | Units | Conditions                                    |                                                      |                |
|                                           |                               |                               | Min                    | Max | Min                             | Max                             |       |                                               |                                                      |                |
| V <sub>OH</sub>                           | HIGH Level<br>Output Voltage  | 0.90                          | V <sub>CC</sub> - 0.1  |     | V <sub>CC</sub> - 0.1           |                                 | V     | I <sub>OH</sub> = -100 μA                     |                                                      |                |
|                                           |                               | 1.10 ≤ V <sub>CC</sub> ≤ 1.30 | V <sub>CC</sub> - 0.1  |     | V <sub>CC</sub> - 0.1           |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.40 ≤ V <sub>CC</sub> ≤ 1.60 | V <sub>CC</sub> - 0.2  |     | V <sub>CC</sub> - 0.2           |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.65 ≤ V <sub>CC</sub> ≤ 1.95 | V <sub>CC</sub> - 0.2  |     | V <sub>CC</sub> - 0.2           |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | V <sub>CC</sub> - 0.2  |     | V <sub>CC</sub> - 0.2           |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.70 ≤ V <sub>CC</sub> ≤ 3.60 | V <sub>CC</sub> - 0.2  |     | V <sub>CC</sub> - 0.2           |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.10 ≤ V <sub>CC</sub> ≤ 1.30 | 0.75 x V <sub>CC</sub> |     | 0.75 x V <sub>CC</sub>          |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.40 ≤ V <sub>CC</sub> ≤ 1.60 | 0.75 x V <sub>CC</sub> |     | 0.75 x V <sub>CC</sub>          |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.65 ≤ V <sub>CC</sub> ≤ 1.95 | 1.25                   |     | 1.25                            |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | 2.0                    |     | 2.0                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | 1.8                    |     | 1.8                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.70 ≤ V <sub>CC</sub> ≤ 3.60 | 2.2                    |     | 2.2                             |                                 |       |                                               |                                                      |                |
| V <sub>OL</sub>                           | LOW Level<br>Output Voltage   | 0.90                          | 0.1                    |     | 0.1                             |                                 | V     | I <sub>OL</sub> = 100 μA                      |                                                      |                |
|                                           |                               | 1.10 ≤ V <sub>CC</sub> ≤ 1.30 | 0.1                    |     | 0.1                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.40 ≤ V <sub>CC</sub> ≤ 1.60 | 0.2                    |     | 0.2                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.65 ≤ V <sub>CC</sub> ≤ 1.95 | 0.2                    |     | 0.2                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | 0.2                    |     | 0.2                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.70 ≤ V <sub>CC</sub> ≤ 3.60 | 0.2                    |     | 0.2                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.10 ≤ V <sub>CC</sub> ≤ 1.30 | 0.25 x V <sub>CC</sub> |     | 0.25 x V <sub>CC</sub>          |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.40 ≤ V <sub>CC</sub> ≤ 1.60 | 0.25 x V <sub>CC</sub> |     | 0.25 x V <sub>CC</sub>          |                                 |       |                                               |                                                      |                |
|                                           |                               | 1.65 ≤ V <sub>CC</sub> ≤ 1.95 | 0.3                    |     | 0.3                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | 0.4                    |     | 0.4                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.70 ≤ V <sub>CC</sub> ≤ 3.60 | 0.4                    |     | 0.4                             |                                 |       |                                               |                                                      |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | 0.6                    |     | 0.6                             |                                 |       |                                               |                                                      |                |
| 2.70 ≤ V <sub>CC</sub> ≤ 3.60             | 0.4                           |                               | 0.4                    |     |                                 |                                 |       |                                               |                                                      |                |
| 2.70 ≤ V <sub>CC</sub> ≤ 3.60             | 0.55                          |                               | 0.55                   |     |                                 |                                 |       |                                               |                                                      |                |
| I <sub>IN</sub>                           | Input Leakage Current         | 0.90 to 3.60                  | ±0.1                   |     | ±0.9                            |                                 | μA    | 0 ≤ V <sub>I</sub> ≤ 3.6V                     |                                                      |                |
| I <sub>OFF</sub>                          | Power Off Leakage Current     | 0                             | 1                      |     | 5                               |                                 | μA    | 0 ≤ (V <sub>I</sub> , V <sub>O</sub> ) ≤ 3.6V |                                                      |                |
| I <sub>CC</sub>                           | Quiescent Supply Current      | 0.90 to 3.60                  | 0.9                    |     | 5                               |                                 | μA    | V <sub>I</sub> = V <sub>CC</sub> or GND       |                                                      |                |
|                                           |                               | 0.90 to 3.60                  |                        |     | ±5                              |                                 |       | V <sub>CC</sub> ≤ V <sub>I</sub> ≤ 3.6V       |                                                      |                |
| AC Electrical Characteristics             |                               |                               |                        |     |                                 |                                 |       |                                               |                                                      |                |
| Symbol                                    | Parameter                     | V <sub>CC</sub><br>(V)        | T <sub>A</sub> = +25°C |     |                                 | T <sub>A</sub> = -40°C to +85°C |       | Units                                         | Conditions                                           | Figure Number  |
|                                           |                               |                               | Min                    | Typ | Max                             | Min                             | Max   |                                               |                                                      |                |
| t <sub>PHL</sub><br>t <sub>PLH</sub>      | Propagation Delay             | 0.90                          | 15                     |     |                                 |                                 |       | ns                                            | C <sub>L</sub> = 15 pF, R <sub>L</sub> = 1 MΩ        | Figures 11, 12 |
|                                           |                               | 1.10 ≤ V <sub>CC</sub> ≤ 1.30 | 4.0                    | 8   | 16.5                            | 3.3                             | 31.0  |                                               | C <sub>L</sub> = 15 pF, R <sub>L</sub> = 2 kΩ        |                |
|                                           |                               | 1.40 ≤ V <sub>CC</sub> ≤ 1.60 | 2.0                    | 6   | 10.0                            | 2.0                             | 12.0  |                                               |                                                      |                |
|                                           |                               | 1.65 ≤ V <sub>CC</sub> ≤ 1.95 | 2.0                    | 4   | 9.1                             | 1.9                             | 10.0  |                                               | C <sub>L</sub> = 30 pF                               |                |
|                                           |                               | 2.30 ≤ V <sub>CC</sub> < 2.70 | 1.5                    | 3.1 | 6.2                             | 1.4                             | 6.7   |                                               | R <sub>L</sub> = 500Ω                                |                |
|                                           | 2.70 ≤ V <sub>CC</sub> ≤ 3.60 | 1.2                           | 2.5                    | 5.4 | 1.2                             | 6.1                             |       |                                               |                                                      |                |
| C <sub>IN</sub>                           | Input Capacitance             | 0                             | 8.0                    |     |                                 |                                 |       | pF                                            |                                                      |                |
| C <sub>OUT</sub>                          | Output Capacitance            | 0                             | 12.0                   |     |                                 |                                 |       | pF                                            |                                                      |                |
| C <sub>PD</sub>                           | Power Dissipation Capacitance | 0.90 to 3.60                  | 10                     |     |                                 |                                 |       | pF                                            | V <sub>I</sub> = 0V or V <sub>CC</sub><br>f = 10 MHz |                |

## AC Loading and Waveforms

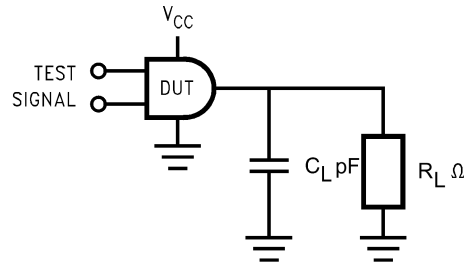


FIGURE 11. AC Test Circuit

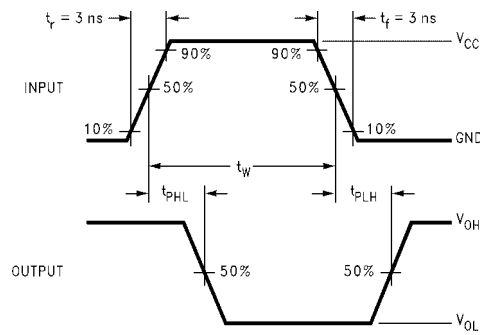


FIGURE 12. AC Waveforms

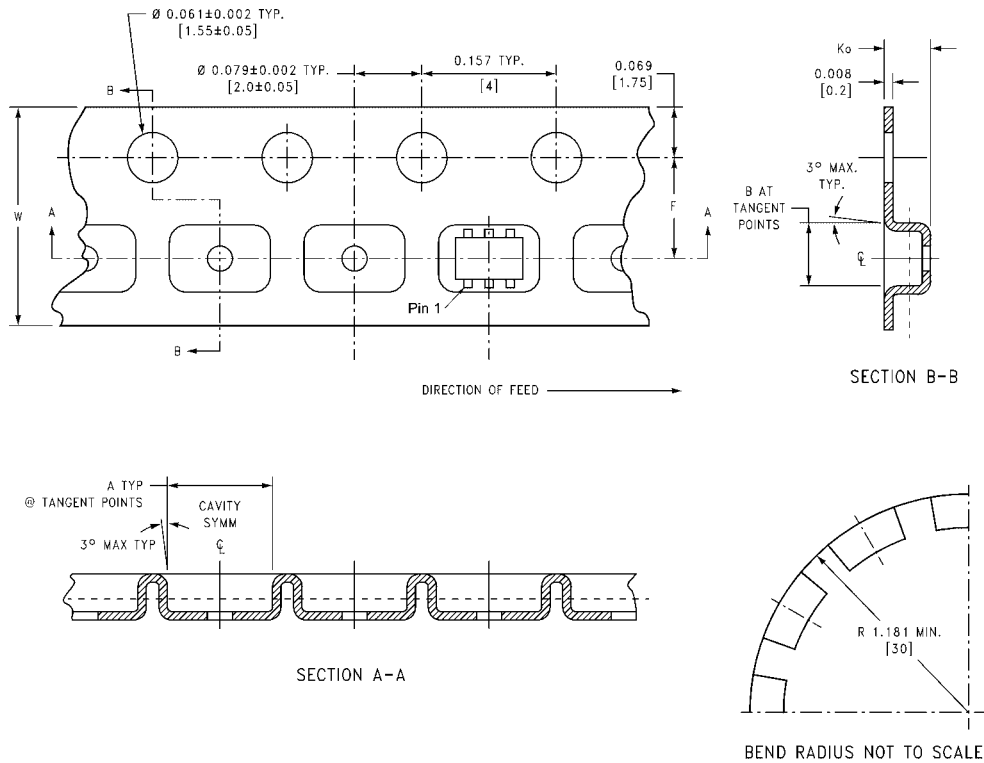
| Symbol   | $V_{CC}$        |                 |                  |                  |                  |            |
|----------|-----------------|-----------------|------------------|------------------|------------------|------------|
|          | $3.3V \pm 0.3V$ | $2.5V \pm 0.2V$ | $1.8V \pm 0.15V$ | $1.5V \pm 0.10V$ | $1.2V \pm 0.10V$ | $0.9V$     |
| $V_{mi}$ | 1.5V            | $V_{CC}/2$      | $V_{CC}/2$       | $V_{CC}/2$       | $V_{CC}/2$       | $V_{CC}/2$ |
| $V_{mo}$ | 1.5V            | $V_{CC}/2$      | $V_{CC}/2$       | $V_{CC}/2$       | $V_{CC}/2$       | $V_{CC}/2$ |

### Tape and Reel Specification

TAPE FORMAT for SC70

| Package Designator | Tape Section       | Number Cavities | Cavity Status | Cover Tape Status |
|--------------------|--------------------|-----------------|---------------|-------------------|
| P6X                | Leader (Start End) | 125 (typ)       | Empty         | Sealed            |
|                    | Carrier            | 3000            | Filled        | Sealed            |
|                    | Trailer (Hub End)  | 75 (typ)        | Empty         | Sealed            |

TAPE DIMENSIONS inches (millimeters)



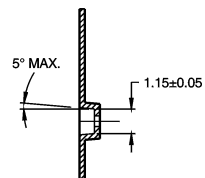
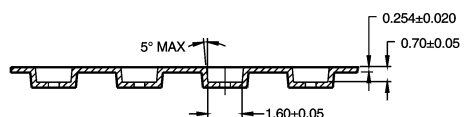
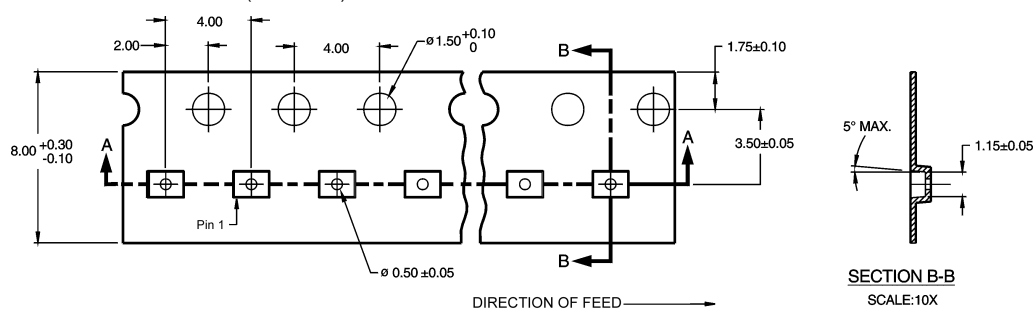


### Tape and Reel Specification (Continued)

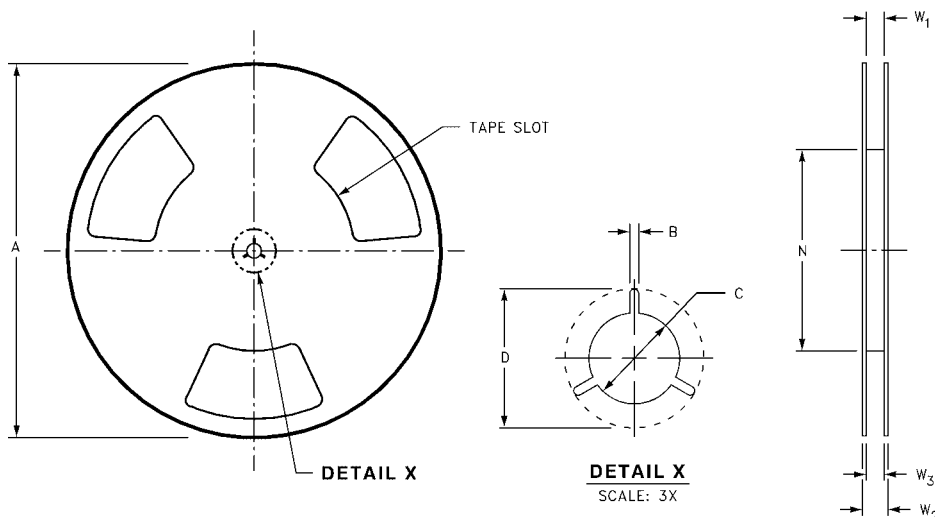
#### TAPE FORMAT for MicroPak

| Package Designator | Tape Section       | Number Cavities | Cavity Status | Cover Tape Status |
|--------------------|--------------------|-----------------|---------------|-------------------|
| L6X                | Leader (Start End) | 125 (typ)       | Empty         | Sealed            |
|                    | Carrier            | 5000            | Filled        | Sealed            |
|                    | Trailer (Hub End)  | 75 (typ)        | Empty         | Sealed            |

#### TAPE DIMENSIONS inches (millimeters)

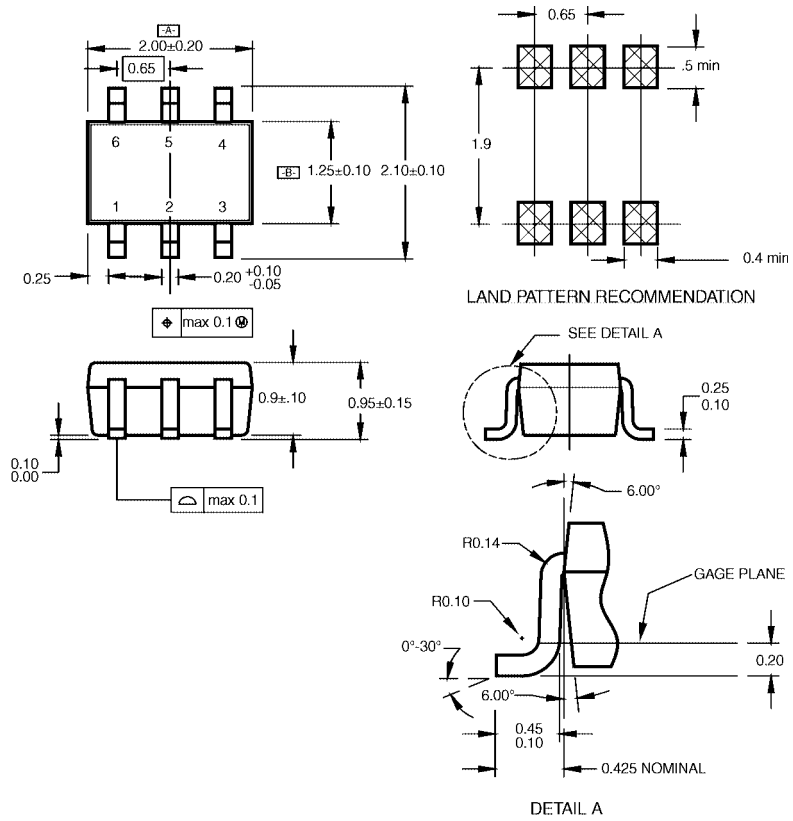


#### REEL DIMENSIONS inches (millimeters)



| Tape Size | A              | B               | C                | D                | N                | W1                                          | W2               | W3                                     |
|-----------|----------------|-----------------|------------------|------------------|------------------|---------------------------------------------|------------------|----------------------------------------|
| 8 mm      | 7.0<br>(177.8) | 0.059<br>(1.50) | 0.512<br>(13.00) | 0.795<br>(20.20) | 2.165<br>(55.00) | 0.331 + 0.059/-0.000<br>(8.40 + 1.50/-0.00) | 0.567<br>(14.40) | W1 + 0.078/-0.039<br>(W1 + 2.00/-1.00) |

**Physical Dimensions** inches (millimeters) unless otherwise noted



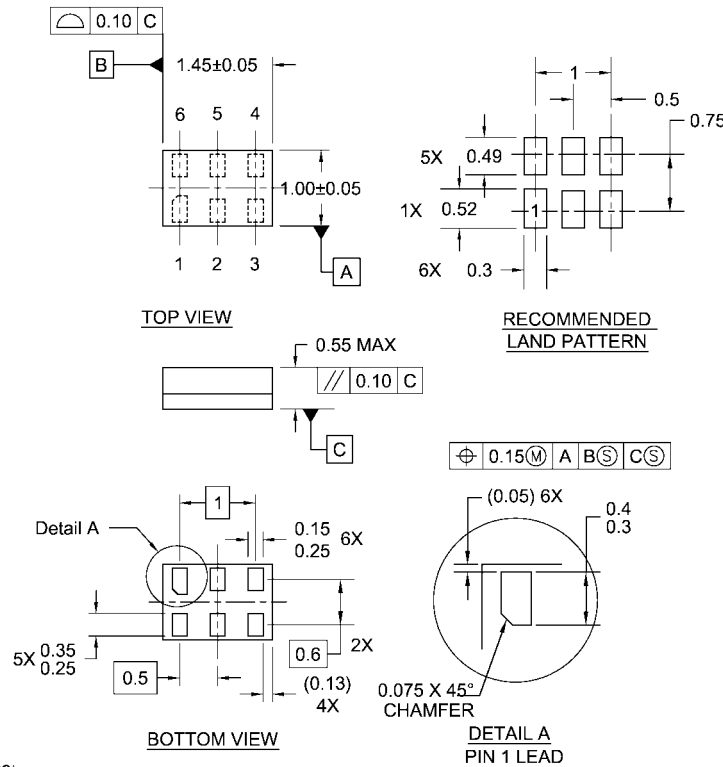
NOTES:

- A. CONFORMS TO EIAJ REGISTERED OUTLINE DRAWING SC88.
- B. DIMENSIONS DO NOT INCLUDE BURRS OR MOLD FLASH.
- C. DIMENSIONS ARE IN MILLIMETERS.

MAA06ARevC

**6-Lead SC70, EIAJ SC88, 1.25mm Wide  
Package Number MAA06A**

**Physical Dimensions** inches (millimeters) unless otherwise noted (Continued)



Notes:

1. JEDEC PACKAGE REGISTRATION IS ANTICIPATED
2. DIMENSIONS ARE IN MILLIMETERS
3. DRAWING CONFORMS TO ASME Y14.5M-1994

MAC06ARevB

**6-Lead MicroPak, 1.0mm Wide  
Package Number MAC06A**

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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